Lectures
ON
THE SURGICAL TREATMENT OF ANEURISM
IN ITS VARIOUS FORMS.

Delivered at the Royal College of Surgeons, June, 1874,

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LECTURE II.—PART I.
INGUINAL AND FEMORAL ANEURISM.

MR. PRESIDENT AND GENTLEMEN,—Inguinal aneurism affects either the trunk of the external iliac artery, just above or underneath Poupart's ligament, or one of the two large branches which it gives off. Femoral aneurism affects either the common femoral, the superficial or profunda femoris, or one of the secondary branches. Specimens of the various forms of aneurism of each of these arteries are before you, except that I have not found in any of our museums an aneurism of one of the smaller arteries, which are very rare.

I have already, in the first course of these lectures, spoken of aneurism of the external iliac artery, but I left the subject imperfect in order to return to it on the present occasion, since many of the aneurisms which affect the external iliac spread into the thigh. Such ilio-femoral aneurisms are of course only accessible to treatment applied to the artery above; for the distal method, whether by ligature or pressure, has proved so unsatisfactory that it seems wrong to waste time upon it, unless in exceptional circumstances. When, on the other hand, the aneurism lies wholly in the thigh, its treatment by compression becomes much more simple, from the superficial position of the artery in the groin; and there are differences in the conditions after ligature of the artery, depending on the position of the two large collateral branches of the external iliac with regard to the sac, which I will shortly point out.

These iliac aneurisms, as I stated before, and as the preparations on the table show, are very frequently tubular dilatations of the whole calibre of the vessel, which often affect its walls for a considerable distance.

Now, these affections of the external iliac artery have of late years been brought under the same methods of treatment as those of the common femoral—viz., the ligature, whether after the method of Hunter or of Anel; compression of the artery on the proximal side of the tumour; and the old operation. We must therefore consider the two affections together, and this is the more necessary since it is often hard to say whether an aneurismal tumour in the groin is or is not limited to one of these arteries—i. e., whether it is wholly above or below the place where the epigastric and circumflex iliac arteries come off, or whether the mouths of these vessels open out of the sac. In the former case it would be purely iliac or femoral, in the latter ilio-femoral.

I exhibited some characteristic specimens of aneurism of the external iliac on a former occasion, and several are now on the table. The two from our own are interesting: No. 1700 (Hunterian) showing a cylindrical aneurism forming on the deep face of the artery, and the other (1699) a large globular tumour involving the vessel to an unspecified extent, and both showing disease extending into the coats of the vessel for a considerable length above and below the tumour.

With regard to aneurism of the common femoral artery, our museum does not, I think, contain any specimen available for demonstration, but these three from the museum of St. George's Hospital are characteristic and interesting. One of them, in which the external iliac artery was tied by Mr. Pollock, shows what is very commonly the case in aneurism in the groin, for which the external iliac is tied—viz., that the operation is not really that of Hunter so much as that of Anel. The ligature in this case was of silver wire. The aneurism was situated so exactly in the groin that it was hard to say before the operation whether it affected the common femoral or the external iliac. Dissection shows the large branches leaving the artery below the sac, or at least opening out of its lowest part, so that in this case the affection was of the external iliac itself; and when this is so, the operation is strictly that of Anel, since no branch intervenes between the ligature and the sac.

When, however, as in this other specimen, the aneurism is situated in the thigh—i. e., when the femoral is alone affected—then collateral branches of considerable size, the epigastric and circumflex ilii, arise between the ligature and the sac, or open out of the aneurismal sac, and it is very probably in consequence of the too rapid enlargement of such collaterals that the ligature of the external iliac artery may fail in curing the disease, which, as I shall presently show, is sometimes, though rarely, the case. The lower the aneurism is situated the more of these collateral vessels there will be, and when the superficial femoral is the artery affected, the profunda itself becomes one of the collateral branches between the ligature and the sac.

These diagrams have been made to show the varying conditions of collateral circulation which are exhibited in our specimens, and one is added to illustrate what would be the case in an aneurism of the external iliac small enough to leave room for the ligature below the bifurcation of the common trunk, and at the same time not involving the mouths of the two large collaterals. It is clear, however, that such an aneurism will be rarely met with.

A very good specimen indeed of aneurism of the superficial femoral exists in the College museum (No. 1637) in a preparation which was presented by Mr. Liston, showing a small sacculated aneurism, springing from the superficial femoral artery, about an inch below the bifurcation. No treatment could be adopted in this case, since the patient was suffering from aneurism of the abdominal aorta, from the rupture of which he died. This preparation from the abdominal aneurism is also in our museum.

This preparation from the museum of the Irish College of Surgeons shows an aneurism in the same situation.

Closely analogous to these in position is the preparation of which the most interesting history has been published by Mr. Prescott Hewett,* and which I here produce from St. George's Hospital museum (vi., 129). I will not at present dwell on the peculiar features of the case. It will be sufficient for my present purpose to contrast the state of the parts with that which is shown by our former preparation from St. George's Hospital. There the ligature had been applied after the manner of Anel, the coagula which filled the artery below the ligature were continuous with those which filled the aneurismal sac, and if the patient had survived, the artery and the consolidated aneurism would have formed one solid mass, as is the case in Sir E. Home's preparation in the College museum. Here, on the contrary, though the whole of the external iliac is converted into a fibrous cord, the common femoral is not merely open, but is so much dilated as to equal the size of the common iliac.

The successful treatment of ilio-femoral aneurism may be said to date from the time of Abernethy, who first tied the external iliac artery in the year 1796 on a patient in whom he had previously tied the opposite femoral artery with success for a popliteal aneurism. But the patient having a femoral aneurism in the other limb, which was near to bursting, Mr. Abernethy tied the common femoral in the groin with two ligatures, dividing the artery between them, as was his custom. Secondary hæmorrhage took place from the upper end of the vessel on the fifteenth day, and the external iliac was then tied for the first time on the living body. The patient, however, was exhausted by these repeated operations, and sank on the eighth day after the last operation.

Mr. Abernethy's next case also proved fatal. Here the operation was undertaken as the first step in the operative treatment of the disease, and, so far, with better prospects of success. But Mr. Abernethy was unwilling to perform it while there was any prospect of cure otherwise; and having seen two cases of spontaneous cure of femoral or iliac aneurism, he delayed for some time to undertake the operation, hoping that the same would occur here. On the contrary, the tumour much increased, and had evidently burst underneath the fascia before the operation, and in all probability

* Med.-Chir. Trans., xxix., 75.

the case was then wellnigh hopeless. Nevertheless, the man survived three weeks, by which time the ligatures had come away, and he died from exhaustion caused by the putrefaction and suppuration of the contents of the aneurism.

These two cases showed the feasibility of the operation, and in his two other cases Mr. Abernethy was successful. One of them was a drunken woman aged forty, the other a Swedish sailor of the same age, who suffered much from inflamed absorbents and other mischief after the operation. These two successful operations were performed in the years 1806 and 1809. These cases having shown that the operation was not merely justifiable, but promising, other surgeons were not slow to follow Mr. Abernethy's example. In fact, the first successful case belongs, not to Abernethy, but to Freer, who tied the artery with success a few days before Abernethy's third operation (his first successful one) was performed; and Mr. Tomlinson, of Birmingham, also tied the artery successfully between Abernethy's third and fourth cases. The operation was at first almost confined to British surgery. Hennen, writing in 1818, relates a case of successful ligature of the external iliac artery, and says of it: "It adds one more to the instances of this splendid triumph of British surgery, which the French operators even to this hour can scarcely credit." A reference to Norris's table will show that almost all the early operations on the external iliac were performed by English surgeons and by Americans whose surgical education was English.

The number of cases which have since been operated on is very great. Dr. Norris has collected 118, published between 1796 and 1846, and since that time the operation has been very common and, I think we may say, fairly successful. Norris's statistics embrace, not only cases in which the artery has been tied for arterial aneurism, but others in which the operation has been performed for hæmorrhage or for varicose aneurism. The cases in which the external iliac was tied for hæmorrhage were 18, of which only 4 died. One of these is Abernethy's first case, in which, as I mentioned before, the patient was much exhausted by long sojourn in the hospital, two severe operations, and secondary hæmorrhage before the ligature of the artery. In three cases where the operation was undertaken on account of varicose aneurism, death followed in every case. This leaves 97 cases of the Hunterian operation for arterial aneurism with 26 deaths—a little over 1 in 4. In four of these cases there were both femoral and popliteal aneurisms, and in three of them a simultaneous cure of both aneurisms was obtained.

This list seems to me to give a by no means unfavourable impression of the operation, especially that part of the list which shows the results of the operation when performed for hæmorrhage. Abernethy's first case could hardly be expected to recover; and, after all, the patient died rather in consequence of his previous sufferings than from the effects of the operation. Another of the four deaths was the result of the hæmorrhage, and occurred three hours after the operation had been completed. Both these cases ought to be struck out of the account, in considering the real dangers of the operation *per se*, and we should then have sixteen operations with two deaths, both of them caused by mortification of the limb. The hæmorrhage in one case was the result of sloughing bubo; in the other, from a wound. I think the whole of the statistics collected by Norris* tend to show that, in spite of the size of the artery, its depth from the surface (which is sometimes considerable), and the proximity of the peritoneum, the operation is not in itself very dangerous.

The experience recorded in our hospital table is quite in consonance with this view. We have here nineteen cases in which the external iliac has been tied at once, without any previous compressi n. In most of these cases the aneurism was femoral; but in two at least it was iliac. The number of deaths was six; but in one at any rate (which occurred under my own observation in the practice of my colleague Mr. Pollock) death was caused by an accidental attack of bronchitis, which was quite unconnected either with the operation or the disease for which it was undertaken; and in another of the fatal cases death was very probably caused by fatty heart. Thus the death-rate of these few cases was about the same in reality as that of the published cases recorded by Norris.

But the cases which recover are not all of them completely successful. In some the patient recovers only at the cost of the limb. This was so in only one of the successful instances in our table, and in one of those who died amputation had been performed. A gentleman of my acquaintance had the thigh amputated many years ago, after the ligature of the external iliac for aneurism, and remains in the most perfect health and activity. In another case, the operation, though not fatal, did not cure the disease at once, although (as in the case recorded by Mr. Hewett) it ultimately subsided. The patient, a young woman aged twenty-seven, who had been working in the fields, was under Mr. Simon's care, with aneurism just below the groin. The external iliac was tied, and everything went on well, but pulsation did not cease in the tumour, and for a time increased daily in strength. Pulsation was felt in the posterior tibial artery on the fourteenth day, and on the nineteenth the ligature came away. She remained in the hospital for nine weeks, pulsation still persisting in the tumour. Five months afterwards she returned to the hospital on account of a tumour just below the wound, which seems to have been of a hernial nature, and there was then no aneurism to be detected. She had evidence then of disease of the heart, but nothing further is known of the case.

If we turn to this preparation from St. George's Hospital (vi., 120), and to the interesting history of it which Mr. Hewett has recorded in the 29th vol. of the Medico-Chirurgical Transactions, we shall, I think, easily comprehend how this failure may at any rate sometimes be produced. In this case the aneurism was believed to affect the common femoral, but originated really just below the profunda from the superficial femoral, as may very probably have been the case also in the other patient. The external iliac artery was successfully tied by Sir B. Brodie on May 30th, 1839. The tumour lost its pulsation at once, became solid, and gradually decreased in size, and the man was discharged from hospital on Aug. 14th as cured. But he was readmitted in the following November on account of a return of pulsation and of bruit in the tumour, and it seemed that as soon as he resumed work the tumour began again to pulsate. Direct pressure by pad and bandage for two months suppressed this pulsation, and he was again discharged as cured. He was again seen nearly two years afterwards—viz., in Nov. 1841—on account of a slight recurrence of pulsation; but, as the tumour had not increased in size, no treatment was adopted. In January of the following year the tumour began to increase in size, but without either pulsation or bruit, and continued to do so for about twelve months. "Repeated and careful examinations, both manual and stethoscopic, made by several experienced surgeons," clearly proved the absence both of pulsation and sound. Suspicions were entertained that the diagnosis had been erroneous, and that the tumour was really a pulsatile cancer. But in January, 1843, the tumour became stationary, and soon afterwards it began to diminish, and this decrease in size continued until the patient's death, which occurred in July, 1843, from phthisis, more than four years after the operation.

In this interesting case it may be difficult or even impossible to give a completely satisfactory explanation of all the phenomena, and in particular to say why the tumour should have begun to grow so long after the apparent cure, and should have grown without any pulsation. But one thing is abundantly clear—viz., that the insecurity of the cure was due to the size of the great collateral artery—the profunda—which opened into the common femoral just above the sac. This great stream of blood has been sufficient to distend the common femoral till it equals in volume the common iliac artery, and it would, I have no doubt, have sufficed, as in the former case, to reproduce all the symptoms of the disease and neutralise the treatment altogether, had it not been that the dilated arteries became in some way narrowed again by a deposit of laminated clot on their lining membrane, which reduced them again and obstructed the stream through the aneurism. If this had not been the case, nothing short of the old operation would probably have sufficed for the cure of the disease.

This liability to reproduction of the aneurism by the collateral circulation is one of the well-known and admitted drawbacks to Hunter's operation, and it applies with peculiar force, in my opinion, to the operation on the external iliac in cases of aneurism of the superficial femoral, on account of the great size of the two arches of anastomosis,

* Norris: Nos. 83 and 84, p. 238.

which, by means of the epigastric on the one hand and the profunda on the other, pour the blood into both ends of the common femoral.

In Mr. Cæsar Hawkins's contributions to Pathology and Surgery (vol. ii., p. 324), there is a very interesting clinical lecture, in which another case is reported, in which he tied the external iliac artery for an aneurism in the groin, and where pulsation recurred three months after the ligature, but was suppressed by pressure on the part, and the patient ultimately did well. It appears clear to me that the direct connexion between the collaterals and the sac which we almost always find in inguinal aneurism is the cause of this occasional recurrence of the pulsation. Still we must allow that such failures of the Hunterian operation, whether partial or complete, are rare. In practice it is often difficult to determine whether the tumour originates above the origin of the profunda or not. If it originates above, and the anastomosing circulation above it is carried on therefore only by the epigastric and circumflexa ilii, it seems to me that there is less chance of such recurrence than where the profunda also pours its blood by reflux into the artery above the sac. The preparation of this case (vi., 120) shows how largely dilated the profunda and its two great circumflex branches have become.

The condition of the external iliac after ligature is usually that which is seen in this preparation from St. George's Hospital (vi., 120), where the whole of the external iliac artery, from its bifurcation to the origin of its great collaterals—the epigastric and circumflexa ilii—is obliterated, but the common femoral is open, and in this particular case has been very greatly enlarged. The same would probably have been the case in these other preparations (Nos. 118, 117 A) had the patients survived.

In our museum is a preparation (No. 1585) after ligature of the external iliac by Sir E. Home, in which not only the external iliac, but the common femoral also, is completely obliterated, and where the two branches of bifurcation of the femoral are of equal size. The aneurism must, I conclude, have been seated on the external iliac itself, or the upper part of the common femoral, though there is now little trace of it, and in its obliteration the mouths of the two arteries given off from the external iliac must have become obstructed, so that the collateral circulation has been mainly restored by the anastomoses of the branches of the internal iliac with those of the profunda femoris.

In our hospital table there were also ten cases of aneurism in the thigh, in which the femoral artery was tied, without any previous trial of compression. In all these cases I believe it to have been the superficial femoral which was tied; at any rate, the contrary is not stated in the notes of any of them, which I think it would have been had the artery been taken up close to Poupart's ligament. Two of these operations were fatal. In one, where the internal circumflex artery happened to come off from the femoral just above the ligature, and where the patient was suffering from diseased cardiac valves, there was secondary hæmorrhage. The external iliac was then tied, but the patient died of hemiplegia five days afterwards, and it was found after death that the middle cerebral artery was plugged. In the other fatal case pyæmia was the cause of death. In one of the cases which recovered the aneurism had burst before the operation. In one of these cases, which was under the care of Mr. Jolly of Birmingham, a cure is claimed in four days—at least, the wound was definitely healed in that time, the operation having been performed on the antiseptic method; the sac, however, only consolidated slowly, but a perfectly satisfactory and permanent cure was ultimately effected.

We may, then, I think, commence the consideration of the treatment of femoral aneurism with the admitted fact that we have in the Hunterian operation on the external iliac artery an efficient, an easy, and a successful method of treatment, but one which exposes the patient to very grave dangers (roughly estimated by a death-rate of about a quarter), which is occasionally followed by the loss of the limb from gangrene, even when the patient escapes with his life, and which in exceedingly rare cases may fail to cure the disease. When the position of the aneurism permits of the ligature of the superficial femoral the treatment is of course less dangerous.

Aneurism of the common femoral, if far enough from the groin, or of the superficial femoral, may be dealt with by the ligature of the femoral just below Poupart's ligament. Most surgeons have preferred the ligature of the external iliac, as Sir B. Brodie did in the case from which I have exhibited the preparation. Some have even gone so far as to say, with Mr. Erichsen, that the ligature of the femoral in this situation is not justifiable. Yet the theoretical basis for such a conclusion is difficult to see; nor does practical experience, as far as I can discover, support it.

Many of my audience are probably acquainted with Ramsden's case, which took place in the year 1810, and which is to be found in his Practical Observations (p. 322). Mr. Ramsden held many of the opinions on aneurism which Mr. Syme afterwards published; and I have no doubt that that great surgeon, if he had been acquainted with Ramsden's cases, would have referred to him in support of his view with respect to the relations between the aneurismal sac and its artery. Mr. Ramsden also, like Mr. Syme, thought but little of the danger of tying an artery in the immediate vicinity of an aneurism; and, accordingly, having a case of aneurism of the upper part of the superficial femoral to treat, he had no hesitation in exposing the common femoral, placing one ligature on it just below the groin, and another about an inch off, close to the origin of the profunda, and dividing the artery between them. The case did perfectly well. In describing the operation, he says: "No difficulties whatever occurred: the loss of blood was most trifling, and the exposure of the naked artery so complete that it was almost unnecessary to have used any aneurismal needle for passing the ligatures, the finger being fully equal to that purpose." This operation is not a favourite in England, where the ligature of the external iliac has been extensively, and on the whole successfully, practised. It has, however, been performed comparatively often in Ireland, and is there looked upon with so much favour that some eminent Irish surgeons even recommend it, in popliteal aneurism, in place of the usual operation on the superficial femoral in Scarpa's triangle.

We have, then, the widest diversity of opinion between those who, like Mr. Erichsen, believe that the operation on the common femoral ought to be banished from practice on account of its great mortality from gangrene and hæmorrhage, and those who believe it preferable even to an operation which is confessedly so successful as the ligature of the superficial femoral. We must endeavour to come to a conclusion on this subject by examining the reasons for and against the two different propositions—(1) that the ligature of the common femoral is to be preferred to that of the external iliac in femoral aneurism; and (2) that the ligature of the common femoral is to be preferred to that of the superficial femoral in popliteal aneurism.

Now, as to the first proposition, Mr. Erichsen says that out of twelve cases in which this operation has been practised three only were successful, all the others having failed from secondary hæmorrhage, which proved fatal in three, while in six it was arrested by ligature of the external iliac; and it is on this account that, as stated in former editions of his work, he would banish the operation from surgical practice, whilst in the last edition he merely says that he considers the ligature of the external iliac in all cases preferable. Others, again, speak of gangrene as being very common after the ligature of the femoral above the profunda. But, after the best search which I have been able to make, I cannot discover that there is any exact information as to what is the real frequency of either gangrene or secondary hæmorrhage after the ligature of the common femoral. Mr. Erichsen has not given us the authority on which he rests his statement as to the twelve cases of ligature of this artery in nine of which secondary hæmorrhage followed. He cannot, of course, mean that the common femoral had only been tied twelve times in all; for in the great work of Porta, published in 1845, sixteen cases were enumerated (though unfortunately without references), and of these an equal number died and recovered. In Norris's list of cases of ligature of the external iliac and of the femoral artery I can find no trace of the cases referred to by Mr. Erichsen. He only gives four cases of ligature of the external iliac on account of secondary hæmorrhage after ligature of the femoral, and in some of these it was probably the superficial femoral that had been tied; while as to the ligature of the femoral artery for aneurism in the thigh he quotes twenty-five cases, but, on referring to his authorities, I find only two or three in which the common femoral was the vessel which was tied.

The experience of the Irish surgeons, as reported by Dr. Rawdon Macnamara,* of ligature of the common femoral above the origin of the profunda, has been extraordinarily favourable. Eight cases are quoted, three of which were operated on by the late Prof. Porter, one by Mr. Smyly, one by Mr. Butcher, one by the present Mr. Porter, one by Mr. Colles, and one by Dr. Macnamara himself. All recovered except Mr. Butcher's and Mr. Colles's patients, and of these Mr. Butcher's did not die from any consequence of the operation, but sank a few hours afterwards from the exhaustion caused by previous bleeding. The operation was performed on account of a wound of the profunda, where the wounded vessel could not be found.

Mr. Colles's case was, in strictness of language, not a ligature of the common, but of the superficial femoral. It does, however, illustrate one of the dangers and uncertainties of the operation. The profunda was given off at the bend of the groin; the ligature was placed on the vessel immediately below this great branch, which, being at the back of the tied artery, was not noticed in the operation, and the patient died of secondary hæmorrhage.

To these must be added a case under Dr. Gregson's care,† where the vessel was much diseased. Secondary hæmorrhage took place, the external iliac was tied, but this did not arrest the bleeding. Gangrene ensued, and the patient died.

In all the other cases recovery was uninterrupted. Mr. Smyly's patient alone had sloughing of some of the toes and very troublesome ulceration of the lower part of the limb, for which he was under my care in St. George's Hospital a year or two ago. But there was distinct evidence of similar ulceration from malnutrition of the limb before the operation, and he would probably have suffered from gangrene equally after the ligature of the superficial femoral.

Dr. Mott's great experience has been recorded to the same effect,‡ though not in very precise terms. He says: "Some surgeons have doubted the propriety of tying the [femoral] artery between the giving off of the profunda and the origin of the epigastric. We have, however, several times put a ligature here, and in every instance with success." And he adds a note to the effect that he had performed the operation in another case while the book was passing through the press.

Mr. Oliver Pemberton lately published a case§ which was in many respects similar to Mr. Colles's. Here, on account of aneurism of the superficial femoral artery, Mr. Pemberton tied, as he believed, the common femoral with a hempen ligature. The patient died a week after the ligature had come away (i. e., on the forty-seventh day after the operation) "from causes wholly removed from the aneurism." On post-mortem examination it turned out that the epigastric, circumflex iliac, and profunda were all given off at the same level, just above the ligature, so that the artery, which had been tied, was really the superficial femoral. But Mr. Pemberton, in relating this case, says that he "selected the operation on the common femoral in preference to that on the external iliac, and should do so again."

From all these facts, I cannot but conclude that the operation on the common femoral artery is not in itself by any means so fatal as has been represented, and that no just cause whatever has been shown for banishing it from surgical practice.

If, however, we come to inquire which is the more appropriate operation for femoral aneurism, when that disease extends so high as to preclude the ligature of the superficial femoral, I should myself be in favour of the operation on the external iliac under ordinary circumstances, and reserve that on the common femoral for cases where the belly was extremely fat, and the ligature of the external iliac therefore unusually dangerous, in which circumstances I would tie the femoral. The main objection to my mind against the latter operation is that which is illustrated by Mr. Colles's case and by Mr. Pemberton's—viz., the uncertainty of the place of origin of the profunda. In tying this artery the wound should be carefully searched in order to see whether the profunda can be felt pulsating near the seat of ligature, in which case it would probably be best to tie it also. But in answer to the second question, whether it is better to tie the superficial or the common femoral in popliteal aneurism, I cannot have any hesitation in replying that, as far as I can judge, the ordinary operation at the apex of Scarpa's triangle is far preferable. Apart from the diminished risk of injuring the femoral vein, which we must allow to be a real though not a very great advantage on the side of the operation in the groin, I know of no superiority in that operation, for the greater facility of the dissection is a matter of no moment whatever in these days of anæsthesia, whilst we must allow that, whatever may be really the risks of gangrene and hæmorrhage, they must, at any rate, be greater in the operation above the profunda than below it; and the history of Sir B. Brodie's case may well lead us to be somewhat apprehensive as to the certainty or stability of cure when so large an artery as the profunda is left to pump its blood into the artery above the aneurism.

* Brit. Med. Jour., Oct. 5, 1867.
† Med. Press and Circular, Sept. 2nd, 1868.
‡ Mott's Velpeau, ii., p. 301.
§ Address in Surgery, 1872, p. 8.

ABSTRACT OF

Lectures ON ELECTRO-THERAPEUTICS.

Delivered at Charing-cross Hospital,

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LECTURE VI.

ELECTRICITY IN PAINFUL AFFECTIONS.

AMONG the most valuable, most generally applicable, and most undoubted effects of electricity is its power of annulling pain. It would almost seem to be one of the most powerful anodynes which we possess, and its power in this respect is hardly as yet fully appreciated by the profession. In the out-patient room I have been accustomed for some time past to try the effect of the continuous current upon pain of all kinds, whether depending upon some obvious organic cause or upon causes not obvious. In the majority of cases I have found that the pain has been *alleviated*, and in a large proportion of these the pain has been absolutely *cured*. In some cases, especially among the female hysterical class, the mere sight of the battery and the application of the sponge-holders to the suffering place, without any current at all, has had the desired effect; and we have not unfrequently been amused as well as instructed in watching the power of the imagination and emotions in diverting the mind from troubles real and fancied.

I may here remark that when you are using electricity for the treatment of pain and other subjective symptoms, it is often a good plan (and indeed should, I think, always be the rule) to begin with a mock application of it, and in this way you will see how much of your result is due to the patient's imagination and how much is due to the electricity. If we could as readily test the actual efficacy of many other therapeutic agents which we employ, our knowledge of treatment and the effect of drugs would become more accurate than it is.

Electricity will often cure pain, and much more often will alleviate it; and as an alleviator of pain it is not open, if properly used, to the objections which are applicable to most other anodyne therapeutic applications. By teaching a patient what are the anodyne effects of morphia, chloral, Indian hemp, or alcohol, we may destroy his sufferings only at the expense of his physical and moral well-being. Again, the after-effects of anodyne drugs are often only less disagreeable than the symptoms which they have removed. Electricity is not open to these objections, for, if it does no good, it does not, I believe, do any harm; and for this reason, if for no other, it deserves every trial as an anodyne. For a local pain, counter-irritation by means of a blister is often of great use; but there is this practical objection to the use of blisters, that if the pain return before the blistered surface has healed, we are debarred from making a second similar application to the same spot. Electricity is

a counter-irritant, and a very powerful and quickly acting counter-irritant, as I have shown you; but it is something more than this—it has undoubted specific effects upon painful nerves; and it is not open to the objection of other counter-irritants, for it will not cause depression and exhaustion, and, if used with due care, may be applied again and again to the same region of the body.

Do not misunderstand these remarks, which are not meant as a crusade against time-honoured and invaluable remedies, but merely as an incentive to you, when you have (as in hospitals) the necessary apparatus at hand, to try the anodyne and counter-irritating effects of electricity.

All three forms of electricity are employed for the relief of pain, but the most generally useful for such purposes is undoubtedly galvanism.

You will find that some writers, when dealing with the anodyne effects of the galvanic current, lay great stress upon always placing the *anode* upon the painful spot. It is always pleasant to be in accordance with physiological facts, and it would increase our knowledge if we could be sure that the pain of neuralgia were always due to an exaltation of physiological properties which could be subdued by the production of anelectrotonus. Neither of these facts is certain, and you will find that Meyer—certainly an authority—says that the positive pole is to be applied near the centre, and the negative (the cathode) on the painful spot. For my own part, I have employed galvanism with much success for the relief of pain, but without hitherto paying any attention either to the direction of the current or the position of the poles. There is no relation, etymological or otherwise, between *anode* and *anodyne*. There are many cases of neuralgia on record which have resisted every known method of treatment, but have yielded after a few applications of the constant current. In employing the current for this purpose, I think the true *locus morbi*, if it can be made out, should be included between the poles. If there is tenderness over any of the vertebræ corresponding with the part of the cord from which the painful nerves arise, one of the rheophores should be placed at or a little above this spot. The other rheophore should be applied seriatim to the various "painful spots" along the course of the nerve. In employing galvanism for neuralgia of the trigeminus, you must be careful—because of its effect upon the eyes—not to use too strong a current.

In some cases of neuralgia the pain is much aggravated by using the muscles which derive their nervous supply from the painful nerve. In these cases you will do well, when you employ the current, to practise during its continuance a rhythmical exercise of the affected muscles. In this way way the muscles, which have been thrown *hors de combat* by the pain, recover their tone, and it is only reasonable to suppose that the healthy exercise of the muscular and nervous function has a beneficial effect upon the healthy nutrition of the entire nerve, from its terminal twigs to its origin in the spinal cord.

The rational treatment of pain is, as with every other ailment, to remove the cause; and the complete and often immediate cure effected in many cases by electricity would seem to prove that the change produced in the nerves by the current is sufficient for this purpose. Many cases of neuralgia have been cured in this way at once. More than once I have completely removed a troublesome headache, not only of the transient type, but also of the migrainous periodic type, by a single application, for a few moments, of a weak current to the head. The pain under the left breast, so common in anæmic women, is often readily amenable to electrical treatment; and my friend Dr. John Williams, of University College, tells me that he has often found ovarian pain yield to the application of galvanism. When, however, the cause is something evidently beyond the reach of electricity we may nevertheless alleviate the pain for a time, often for many hours, by employing a galvanic current.

I remember the instance of a patient of this hospital who came to me suffering from "lumbago." That the "lumbago" was possibly caused by serious mischief in the cord or its coverings was evident by the great tenderness of the spinal column, the sensation of numbness in the feet, and occasional attacks of spasmodic pain shooting into the lower limbs. The patient was a poor basket-maker, and when first he came under my care he was scarcely able to move because of the pain. Counter-irritation and drugs having given him no relief, I determined one day to try the effects of the galvanic current. He was then unable to walk, and was obliged to perform the journey to and from the hospital in an omnibus. The galvanic current was applied to the back, the pain was completely alleviated, and he was able to walk away with little or no difficulty to the nearest railway station, half a mile off. This alleviation lasted about twenty-four hours, when his troubles returned. After this upon several occasions he presented himself for the purpose of having the current applied to his back, for its application was always followed by many hours of freedom from pain, while nothing else seemed capable of giving him relief. I then lost sight of him for six months, when he again presented himself in the out-patient room, with a large lumbar abscess and every sign of caries of the vertebræ, and he was admitted to the hospital to be under the care of the surgeons. I mention this case merely as an illustration of the power of the current to alleviate pain, notwithstanding that such pain may be caused by the gravest, most permanent, and incurable organic changes.

Another instance no less remarkable was in the case of a middle-aged lady who was sent to me by my friend Dr. Anstie. For more than a year she had been a martyr to occipito-cerebral neuralgia of the left side, of a most excruciating character. An examination of the left side of the occiput and neck revealed slight swelling, and, on deep palpation, a crackling sensation could be felt in the region of the transverse processes of the first two or three vertebræ. Whether this was due to rheumatic inflammation or caries one could not determine, but doubtless this mischief, whatever it was, was the cause of her trouble, and the patient was accordingly informed that galvanism would probably do nothing for her. Her pains were much aggravated when the trapezius or the rotators of the head were moved. The current was employed about half-a-dozen times, the positive pole being placed at the occiput, and the negative moved in a labile fashion over the side of the neck and shoulder. The muscles were rhythmically exercised at the same time. Whenever the current was employed her pain was alleviated, the alleviation lasting for varying periods. On one occasion she was free from pain for nearly two days—a blessing which she had not enjoyed for months. Of couse she was not cured, and she is probably now as bad as ever; but it surprised me not a little to find that, in the face of a grave permanent cause, we could give so much alleviation.

I have several times employed the current to alleviate the pains of intestinal colic, and often, though not always, with success, which in some cases was complete. I have, on the other hand, found many cases of pain in which the current apparently did no good whatever.

The galvanic current is, on the whole, the best for relieving pain, because it is itself the least painful form of electricity. Some writers—Meyer amongst them—strongly recommend faradisation, applied by means of a metallic brush or in the form of the "electric moxa" to the painful spot. Dr. Tibbits records a case of sciatica which was cured by franklinisation, and also a case of facial neuralgia cured in the same way. The method employed was to "charge" the patient, and then to "take sparks" along the course of the affected nerves.

There is a class of painful and sometimes semi-paralytic affections the pathology of which is shrouded beneath that most connotative word "rheumatic." The ordinary "stiff neck" is one of these. A man sits or sleeps in a draught with his neck in a strained position, and the next morning he cannot move his head without suffering agonies of pain. Again, a coachman, exposed to all weathers on his box, finds that the deltoid muscle of his left (the driving) arm, from exposure to wind and damp, and from being kept in one position, refuses its office; he is unable to raise his elbow, and the attempt to do so causes him much pain. The stiffness felt in the adductors of the thighs after a long ride in the wet, and the pain and stiffness about the region of the right shoulder which torment old sportsmen who have used the gun too much, belong to the same order of ailments.

Again, there are those various conditions which cause the symptoms of true "lumbago," situated at one time, I suppose, in the muscles of the back, and another time in the thick aponeuroses which cover them. Sciatica is another of the "rheumatic" ailments, the characteristics of which are that the pains do not follow the lines of nerve distribution very exactly, and that the pain is as much "muscular" as

"nervous" in character, and is much aggravated by muscular movements.

Now in the vast majority of these cases you will find that faradaism and galvanism, but especially the latter, act in a way which is little short of magical. If I were asked to state for what class of diseases electricity was of the greatest use, I should have little hesitation in saying the class which we are now discussing. I believe it to be essential that the painful muscles should be made to contract thoroughly. You may either do this by employing faradaism, and so causing a strong artificial contraction; or you may use the constant current, and while the patient is under its anodyne effects you may make him thoroughly exercise all the muscles implicated.

Not long ago the coachman of an eminent London surgeon came to me complaining of the "rheumatism" of his left shoulder. On examining him, I found that his left deltoid muscle was almost useless to him. He could not, and had not, he said, for many years been able to raise his elbow, except in a very slight degree, and always with pain. He had exhausted the various liniments and oils, but with no benefit. I strongly faradised his deltoid muscle, and in a few minutes he was able to raise his elbow quickly and repeatedly above the level of his shoulder. You will come across many cases in which a cure may be effected quite as quickly and completely.

A very obstinate case of "lumbago" was lately put under my care in this hospital by my friend and colleague, Dr. Julius Pollock; and, as it shows very strongly what electricity will do in such cases, I will give you the facts.

W. G——, a brass-finisher, aged thirty-five, was admitted as an out-patient on the 16th of July, 1873. He was bent almost double, walked with the greatest difficulty, complained of intense "lumbago" pain, and gave the following history:—He had been accustomed to work a good deal with the lathe, standing up and moving the treadle with his right foot. About six years ago a pain came on gradually, affecting the back of the thighs and hips, which the medical man attending him called sciatica. The pain became so severe that he was obliged to give up work, and had not since been able to resume his employment. The pain left his legs, and finally settled in his back; and was most marked in the lower dorsal and lumbar regions, of a plunging, shooting character, aggravated by the slightest movement or the lightest touch, and implicating not only the dorsal muscles, but the intercostals as well. Movement had become so difficult that he was often as much as two or three hours in dressing and undressing himself. The back was considerably "bowed," the curvature being far more noticeable at night than in the morning. There was no indication whatever of any disease of the vertebræ, and the ailment seemed to be mainly muscular.

The positive pole was placed at the upper part of the spinal column, in the middle line and the lower part of the back, and the lateral regions of the thorax were thoroughly sponged with the negative pole. The sponging had the immediate effect of annulling his pain, and produced great redness of the skin of the back and chest. While the current was being used he was made to exercise his muscles, to flex and extend his back, to rotate his spine, and to inspire and expire rhythmically and repeatedly. The result of this treatment was his rapid improvement, and he has been enabled to resume his employment, which he had discontinued for six years.

We have had before us at a previous lecture a patient who has been greatly benefited by galvanism. He was a middle-aged man, and when he applied for relief among the out-patients of this hospital he was suffering, and had suffered for nine months, from that most troublesome annoyance "tinnitus aurium." There was, he said, a noise "like the blowing-off of steam" constantly going on in his left ear. The least jarring of his body, even when walking, was most painful to him, and the roar of the London streets had become intolerable. I will not hazard any opinion as to the pathology of this disease; but it will, perhaps, suffice to say that a careful examination of the ear revealed to us nothing physically wrong with it, and that the clearing of the ears of wax, and the employment of nervine tonics and nervine sedatives, had proved of no use. We then thought of giving galvanism a trial, and putting one rheophore in the patient's hand, we applied the other to the meatus of the affected ear. He was immediately relieved; and at his next visit, a week later, he stated that he had been free from the noise for five days, and it then returned again, but not so severely. We repeated the application, and the result has been that he has almost entirely lost his trouble.

Electricity is no panacea, and often fails entirely to relieve pains; although I believe that, on the whole, the cases in which it is effectual would outnumber those in which it fails. Unfortunately, I am unable to give you any rules which should lead you to expect either failure or success in any particular case. As our knowledge increases our powers of prognosis will doubtless increase also.

ON EXCISION OF CANCER OF THE BREAST BY SCISSOR-CUTTING UNDER ETHER SPRAY.

BY BENJAMIN W. RICHARDSON, M.D., F.R.S.

AT this moment, when the dangers of general anæsthesia are so anxiously felt by the profession, the following clinical facts may prove of value.

A lady fifty years of age consulted me in April last respecting a tumour in the left breast. The tumour had been present, and had at times been painful, for a considerable period, but, as it remained of small size, she did not consider it of importance until this year, when it began steadily to increase in size. The nature of the tumour was sufficiently clear. It was a hard scirrhus, of the size of a small hen's egg, loosely held in the gland, with no adhesions to the muscular structure beneath. The family history of the patient confirmed the diagnosis: her mother had suffered from scirrhus of the breast. The diagnosis left no doubt respecting the proper mode of treatment. There could be no hesitation in advising that the abnormal growth, while it was yet easily movable and removable, should be excised, and to this advice the patient gave a willing assent.

But now the question of the administration of an anæsthetic came under consideration. The action of the heart of this lady was so intermittent and irregular, and the power of her heart was so reduced, that the slightest external impression influenced it in its motion. She belonged, in a word, to that population which is prone to die suddenly from chloroform and the other narcotic vapours.

Under these circumstances I proposed to the patient that the tumour should be excised under local anæsthesia; and, that the failure of the process, if failure should follow the recommendation, might fall upon me entirely, I performed the operation myself.

I operated on the 8th May last, in the following manner. The patient having been placed in a semi-recumbent position on a narrow couch, I directed Mr. W. Perkins, who very efficiently conducted the local anæsthesia, to direct gently over the tumour a large spray of common ether, so as to chill thoroughly but not to freeze the skin. I let him maintain this for a period of five minutes. Then I handed to him another tube and bottle for spraying over the already chilled part the light fluid called anæsthetic ether—a compound of ether of sp. gr. ·720 with hydride of amyl. A few moments' application of this lighter ether was sufficient to render the whole of the breast frozen like a hard snowball. For a minute longer, that the deeper structures might become equally chilled, the spray was continued. When the structures were thus prepared, instead of using a scalpel for cutting, as in the ordinary way, I made the required incisions through the skin with a pair of small, strong, sharp, slightly-curved scissors. Commencing the incision by an angular cut at the outer margin of the part to be excised, I carried the lower blade of the scissors deeply into the breast with the edge of the blade everted. In this way I cut the lower flap; then, commencing at the same angle, I cut in the same manner the upper flap. The rapidity and ease with which these incisions through the hardened tissues were made struck me most favourably. The incisions were deep

enough to enable me to grasp the tumour firmly with the left hand. I now laid down the ordinary sharp-cutting scissors, and with a pair of strong, slightly-curved, tooth-edged scissors, I proceeded to cut on each side of the tumour until I could fairly lift it up; then, by a few strokes made with the same scissors underneath, I cleared it completely away. The operation lasted precisely three minutes, and was unattended, during the whole time, by the escape of blood. The diseased mass removed, I had the ether spray withdrawn, in order to see if any vessels would bleed during reaction from the freezing. There was a little oozing of blood, which quickly subsided, and one artery was tied, both ends of the ligature being cut off close to the vessel. The wound, carefully cleaned with a soft, damp sponge, was closed; the edges of it were secured with five sutures; a pledget of cotton-wool, charged with styptic colloid, was placed over the wound; and a lint-pad and firm bandage completed the dressing. The patient passed a good night after the operation. She was allowed to rise and go into the drawing-room on the following day; and as she exhibited no rise of temperature beyond 99° Fahr., and that only for a few hours, and suffered from not one untoward symptom, the dressing was left untouched until the 13th of May, when, on removing it, the wound was found healed throughout its entire extent. The sutures were removed a few days later, when the line of incision was found fairly closed, without a particle of discharge or interruption of healing at any point.

During the whole of the operation the patient did not utter a single expression of pain, and I may here add her description of what she felt of the operation. The description was taken down by Dr. Platt, who rendered me his most able assistance, from the patient, immediately after the operation, and it is repeated in her own words:—"During the application of the ether spray the local feeling was that of gradually becoming cold, as in frosty weather, just as when the hands go numbed, but there was no actual pain. Felt pressure when the scissors went into the tumour, and experienced a kind of jar, but did not feel anything like an incision, and, in fact, was not aware when the incisions were made. Felt nothing of the next part of the operation, but when the tumour was held up and divided by three long cuts, experienced a feeling, not of pain, but as if the parts were put on the stretch or dragged; did not feel the tying of the ligature, but when some small substance [a bit of loose fatty tissue] was cut off felt again as if the parts were being stretched. When the sutures were introduced felt the pressure whilst the flaps were being held together, but was unconscious of the prick of the needle."

In all respects this operation was, as an operation, completely successful, and one other success followed it I did not expect. As the recovery from the excision progressed the irregular action of the heart became less marked, and ultimately disappeared altogether. In the month of July this lady called upon me, and was found to be restored to perfect health.

Soon after the recovery of the patient named above, another lady came under my care, who was suffering from a scirrhous tumour, situated a little above the right breast, towards the axilla. This tumour, as a small mass about the size of a hazel-nut, had been present for several years without undergoing change, but recently, upon the occurrence of a slight blow from a fall, it had commenced rapidly to increase in size. It was now a firm and well-defined scirrhus of the size of a pullet's egg; it moved with moderate freedom beneath the skin, but not without conveying a suspicion, which afterwards proved to be correct, that it was attached to the pectoral muscle. Over the centre of the tumour there was retraction of the skin, and the nipple was slightly retracted towards it. The glands in the axilla were free.

The diagnosis in this instance was sufficiently clear, and the practice of immediate removal of the tumour seemed to me positive. But again the question of the administration of chloroform or of some other anæsthetic vapour pressed for careful consideration. The patient had been declared by one of her medical friends to be suffering from disease of the heart, and had been urged by him in the most forcible terms not to subject herself to general anæsthesia. Another medical friend, in less determinate but still serious expression of opinion, gave her similar advice. She herself had read of the danger she heard described, and her anxious dread alone was all but sufficient to preclude the administration of any narcotic vapour. On examination of the heart I found an exceeding feebleness of action, an irregular and often intermittent beat, and at the apex a soft systolic murmur. I suggested, under these circumstances, the removal of the scirrhous tumour under ether spray, and on June 23rd, again very ably assisted by Dr. Platt, I performed the operation. The steps of the operation were much the same as those described in the previous history. For a few minutes an ether of a specific gravity of 1035 was sprayed over the breast, then the light anæsthetic ether was used until all the part was completely solidified. This condition attained, I made the incisions with sharp cutting scissors, separated the tumour by a few lateral divisions with the same scissors, and then raising it, cut it out from its deep connexions by means of the curved tooth-edged cutting scissors. The growth in this instance was firmly attached to the pectoral muscle over a space the size of a florin, but I found no greater difficulty than a little delay in separating it, together with a layer of connective tissue, from its attachment.

So far the operation was actually bloodless. I waited a brief period before closing the wound for perfect reaction to occur and for observing if there were any hæmorrhage. With the reaction one small artery yielded blood, but the bleeding was instantly and effectually stopped by torsion. The edges of the wound were brought together with five silk sutures, and the styptic colloid dressing, with cotton wool, a soft pad and bandage, was applied.

This patient, like the last, bore the operation perfectly. She felt no pain from the incisions, and although the deep dissection which was required to remove the tumour from its attachment was felt as a severe drag or pull, it gave rise to no evidence of acute pain. The act of sponging the wound, and the insertion of one of the sutures, caused momentary expression of pain, but, on the whole, she was throughout brave, perfectly collected, and as quiet as if she had been asleep. This patient, like the previous one, progressed so favourably that she was allowed to get up every day. On the fourth day after the operation, as she complained of the pressure of the pad, I removed the dressing, and found the wound freshly healed throughout its entire length, without a trace of suppuration. In this act, however, a little misfortune occurred. A portion of the cotton wool adhered firmly, through the styptic colloid, to a loose end of the upper suture, and, while I was extricating the wool, an accidental movement of the patient caused the ligature to tear out of the upper lip of the newly-joined skin. From this slight point there flowed as much as a drachm and a half to two drachms of bright-red very thin blood. I stopped this bleeding, not very readily, by firm pressure with styptic wool; but a little further bleeding took place during the day beneath the compress and into the subcutaneous tissue, and gave rise to a superficial sore about the size of a sixpence. On the eighth day after the operation the patient was able to go out of doors, and, but for the slow healing of the small sore whence the hæmorrhage proceeded at the first dressing of the wound, recovery rapidly succeeded.

One other fact closely connecting this with the preceding case is worthy of particular notice. As this second patient began to rally from the operation, the distressing cardiac symptoms entirely passed away, the stroke of the heart improved in tone, the irritability ceased, and the faint murmur became imperceptible.

NOTES.

The facts recorded call for one or two brief comments.

The effect of the local anæsthesia.—It is certain that in both these cases the local method afforded everything that could be desired in the way of anæsthesia. It saved all acute pain; it saved the patient the dread of death during the insensibility from a general anæsthetic, and it enabled me to proceed in our task without a thought as to the immediate safety of the patient. I may say more for it still. It warranted me in recommending the operation. I should certainly not have advised any friend of mine, whose heart was in the same condition of irritability and irregular nervous supply, to inhale an anæsthetic vapour to the fatal effects of which such conditions of the circulation are so favourable. Applying then this same rule to a patient, who

in putting his life into my hands makes his life for the time mine, I should consider it actually wrong to recommend a risk I would not myself accept. But, taking advantage of the local method, I had no occasion to suggest a danger of any kind, while I secured my patients the benefits of anæsthesia. I saved them the dread of death from the effects of a general anæsthetic; I saved them possibly the symptoms of after-vomiting and faintness; and I saved myself and my colleagues during the operation the anxiety that ever attends the administration of a general anæsthetic to persons in whom disease of the heart is foreknown.

The method of cutting with scissors.—Local anæsthesia has many disadvantages. It is more troublesome than general anæsthesia as a detail of practice, and, as it leaves the consciousness alive, it fails at times in preventing the fears of the patient. But hitherto the greatest difficulty in operating under it has been the obstacle of cutting through the hard, frozen, insensible part. The resistance to incision by the best cutting knife, and especially to dissection by the knife, is such that I have seen the most skilful surgeons troubled by it; and I have never been able to complain of the objection that has been made to the method, on this ground. The difficulty is now overcome by the process of scissor-cutting which I have here introduced. The advantage of the scissors over the scalpel will be at once proved by anyone who will take a thick, firm structure—the cover of a book for example—and try to cut through it. With the best of scalpels he will be troubled; but with scissor blades he will cut with the utmost facility, if the blades be well set. So, in cutting through the frozen animal tissue, the parts can be divided as rapidly as may be wished with the scissor blades, with perfect accuracy of incision, and as deeply as may be desired. The cutting is also made without any downward pressure, by which pain of pressure is saved. Also in deep dissection, the tissues, frozen as they are exposed, can be divided more easily than by the knife; for the harder they are solidified, the easier they are divided by the scissor blades. In a word, I believe that every cutting operation, in which local anæsthesia is practicable, may be performed neatly and effectively by scissor-cutting, and that a much larger number of operations may now be painlessly carried out under the local method.

Some little attention requires to be paid to the instruments used. The scissors for superficial or skin cutting should be exquisitely sharp, neat, and strong; and I prefer them slightly curved. For deep cutting, where there are many bloodvessels, the tooth-edged cutters are valuable. These pierce, crush, and divide at the same time, and they save blood. For other purposes, as for division of a sinus, some modifications are required, and Messrs. Krohne and Sesemann are now making for me a case of instruments for the special purpose of operation on the method under consideration.

Effect of the operation on the heart in the cases related.—No fact is more instructive in the history of the patients recorded in this paper than the beneficial effect produced on the functions of the heart by the operation. In both instances the cardiac irregularity and irritability were purely due to irregular nervous supply—to nervous irritation and consequent muscular exhaustion. The irritation might have been in part due to the mental anxiety which naturally accompanies the disease, or it might have been due to the irritation of the tumour, and have been reflex in character. Whichever view be correct, the result of the operation was curative, and, as the cases are typical of a class of phenomena of disease, the lesson they teach is extended far beyond them as individual illustrations. They show that so soon as the heart obtains rest from the persistent nervous thrill that invades it, its muscular tone returns, and its irregular motion and excitability cease. Thus by operating early for the removal of cancer the surgeon acts as physician also, and prolongs the general life by removing the local disease. I am convinced I have seen patients suffering of cancer die from the mental and local irritation of the disease long before any development of the malady has advanced to kill by destruction of the part or organ involved. I infer, therefore, that if, without any danger to life from general anæsthesia, we can remove external malignant growths painlessly and promptly, so soon indeed as they are detected, we shall bring art, effectively, to the defeat even of cancer.

Hinde-street, W.

ON

TOKELAU RINGWORM AND ITS FUNGUS.

[A NEW OBSERVATION.]

BY TILBURY FOX, M.D., F.R.C.P.,

PHYSICIAN TO THE DEPARTMENT FOR SKIN DISEASES IN UNIVERSITY COLLEGE HOSPITAL.

THERE is a form of eruption which appears to be very common at Samoa, the hitherto unknown cause of which I have recently been able to discover; and I seek this opportunity of placing the main facts in regard to it before the profession. The Rev. Dr. Turner, M.D., refers to the disease, in his First Annual Report of the Samoan Medical Mission, under the term "Tokelau Ringworm," or "Lafa Tokelau"; so named from its having recently been introduced to Samoa from Tokelau or Bowditch Island. Dr. Turner says, "It is a scaly disease, much more like ichthyosis in its general appearance than any other disease with which I am acquainted. The scales, however, differ from those of ichthyosis in that they are not disposed in squares. They run in concentric circles, and may be well represented by taking a sheet of stout cardboard and shaving the upper layer of it in such a way as to make it coil up in circles. The rings of the desquamated cuticle are about a quarter of an inch apart..... My impression is that it is a parasitic disease, but as yet I have not succeeded in discovering any parasite; nor can I speak definitely of any treatment which has proved successful." It seems that the existence of the disease was noticed by the officers attached to the United States exploring expedition, under the command of Captain Wilkes, in 1841, who noticed it in the Kingsmill group, and spoke of it under the designation of "Qune," and as, at some of its stages, *resembling* the ringworm.

Dr. Mullen, of H.M.S. *Cameleon*, has been good enough to forward me some facts about the disease, through the courtesy of the Director-General of the Navy Medical Department. He remarks that Dr. Turner has noticed, about three hours after the application of sulphur ointment to the skin, some winged insects bursting through the ointment and flying away. "On scraping the skin there were perceived dipterous insects, somewhat smaller than midges, others still smaller, and what appeared to be the dipterous insects in the pupa stage. Now these are not accidental accompaniments, for they have been found in all cases about three hours after the ointment has been applied; and the Rev. Dr. Turner has procured "scrapings" from missionaries of other islands, who, by his advice, have used the ointment, and has always found the same insects. It is strange," Dr. Mullen continues, "that before applying the ointment no trace of these insects, nor any pustules, papules, &c., indicating the presence of such large parasites, can be discovered. Possibly they may exist as ova in the under surface of the scales, which become developed on the application of the ointment; but is not this development too rapid even for the insects?"

I have received "scrapings" from the skin and a number of the dipterous insects referred to in the above paragraph from Dr. Turner; and I now proceed very briefly to summarise the conclusions to which I have come after a careful examination of them.

The disease is clearly a form of ringworm (tinea), dependent upon the growth, amongst the cuticle cells, of a vegetable fungus. The general features of the disease, in its mode of onset, its progress, symptoms, and naked-eye characters, are those of an exaggerated tinea unquestionably. There are points of difference, I admit; but I will refer to these in a moment. In the "scrapings" of cuticle I find abundant evidence of a vegetable fungus of a most luxuriant kind. *This fungus exists in great abundance; but, though so plentiful, its presence may readily be overlooked, unless a very thin layer of the "scrapings" is examined.* Of the accompanying illustrations, Figure 1 represents the fungus magnified under a power of 500 diameters, and as drawn with the camera. It will be noticed that the fungus elements are very large. They bear, indeed, a resemblance to the parasite of the so-called Eczema marginatum of the Germans. I am not at present prepared to say whether the fungus is a modification of the trichophyton or a new and special one. I await further

experiments, and do not propose therefore to give the fungus or the disease a new name. Figure 2 shows the fungus as seen under a power of 1500 diameters, and conveys a very good idea of the structure of the cell-wall of the conidia,

X. 500.

FIG. 1.—Showing scales of skin containing the fungus.

and the mode in which these conidia are developed within the cell-wall of the mycelial threads. But I purposely omit entering into any further account of the microscopic history

X. 1500.

FIG. 2.—Showing thick cell-wall of the conidia (secondary spores), and how the conidia arise from the threads by a differentation of the contents of threads A, B.

and relationship of the fungus, as my object is a practical one. Suffice it, that I have discovered the fungus and figured its main features.

I have been unable to detect any dipterous insects—of which I have specimens—in the "scrapings" which I have examined; and it is clear to me that their presence is accidental, and that they are attracted to the skin, in Tokelau ringworm, by the ointments applied to it, and in which they become embedded. They are not, so far as the microscope enables me to judge, present in the diseased skin until after ointments have been applied. Further, dipterous insects could not, I take it, possibly cause such an eruption as Tokelau ringworm; and it is impossible to suppose that, in or upon a skin in which not a trace whatever of their presence exists, the application of a strong parasiticide would cause the rapid development in the space of three hours of a host of these dipterous insects from ova supposedly existing in the skin, and undiscoverable by accurate means of detection. I presume it is the fact of the non-discovery of the fungus which led to the supposition that the diptera may be the cause of the disease. But, now that I have demonstrated the presence of the fungus, and having regard to the general features of the eruption in Lafa Tokelau, the aspect of the question of the relationship of the diptera to the disease in the light of cause and effect is altogether altered. I have said that, as compared with exaggerated tinea circinata, Tokelau ringworm offers some points of difference. I think these do not refer to essential features of the eruption, but rather to those which are accidental—viz., to the infiltration and the scaliness; and these differences are to be explained, I think, by the greater luxuriance and amount of fungus present, which necessarily cause a greater degree of inflammation. It is not necessary to suppose that the fungus is a special one; the differences referred to will be equally accounted for if it should turn out that the parasite is a modification—a more luxuriant form than usual—of the trichophyton.

Penmaenmawr.

CASES OF ELEPHANTIASIS SCROTI; REMOVAL.

BY SURGEON C. LLOYD, M.D., M.C., Q.U.I., &c.,
H.M.'S INDIAN ARMY.

CASE 1.—Munmalin Agi, Moplah (Mussulman), aged twenty-seven years, was admitted into the Calicut Civil Hospital, Malabar, August 12th, 1873, with a scrotal tumour of enormous dimensions, reaching to within three inches of the ground as the man stood erect, and of fifteen years' growth.

The patient stated that the tumour commenced in the scrotum, noticeable at first by a slight thickening of its coats, afterwards increasing to an enormous size, and involving the penis. This increase of size of late years has been attended with periodical attacks of slight fever, variable in its duration, usually appearing every month, and attendant on an appreciable increase of bulk of the affected part. Within the last two or three months there have been no febrile attacks. He is able to walk about with difficulty, owing to the extreme weight which he has to carry, which, however, he keeps supported to a considerable extent by the arrangement of his dress. Has performed three pilgrimages to Mecca, to the shrine of the Prophet, the last being only a few years since. Elephantiasis of both legs coexists, but in one to a very slight degree. Patient's general health is good; heart perfectly healthy.

The shape of the tumour is somewhat oval, pediculated at its upper end where it grows from the pubes, extending down (in the erect posture) to a level with the ankles, and concealing laterally much of the lower extremities. Surface is quite smooth; about the centre is an opening which leads up to the penis. The dimensions of the tumour are: Around the neck at narrowest part, 14½ inches; transverse measurement, 44 inches; vertical measurement, 54 inches.

Aug. 21st.—I removed the growth with the assistance of Dr. Pout, H.M.'s 43rd Light Infantry, several dressers giving good aid. Having kept the tumour elevated by means of ropes for an hour previously to allow some of the venous blood to drain away, the patient was put under chloroform. A soft twisted rope (about the thickness of a window sash-line), provided with handles, having previously been passed around the neck of the tumour, and running through a steel ring acting as a tourniquet, was then tightened by assistants, effectually controlling the hæmorrhage. The tumour was then lowered to a level with the man's body, and the operation proceeded with. Having inserted a director into the sinus leading to the urethra, a long, deep vertical incision was made down to the penis with an amputating knife, and the organ, which lay several inches deep from the surface, was then exposed. The knife was then introduced on the director, and the hypertrophied prepuce slit up, disclosing the glans penis. Having removed the greatly thickened prepuce, the deeply lying penis was rapidly dissected out, and reflected on to the abdomen. A long, deep incision was then made over the left testis along the direction of the cord, and the gland, with a quantity of fluid, was contained in the thickened tunica vaginalis, which was detached from the testis, and that organ dissected out and held up on the abdomen. The right testis was reached

by a similar parallel incision, and with the cord dissected out and reflected; a transverse incision then connected the two, and a few sweeps of the knife separated the growth. Ligatures were then applied to every bleeding point, between thirty and forty having to be used.

No subsequent hæmorrhage took place. The penis and testes were covered with a weak solution of carbolic oil on lint; this formed the only application.

The testes, which reached with their elongated cords nearly to the knees, were supported on a pillow, and with the penis, completely excluded from the air by the dressings.

The weight of the tumour was found to be nearly 65 lb., including a quantity of fluid resembling serum drawn off.

About seven weeks after the operation the patient was able to get up and walk about. The testes are now quite retracted to their normal length, and covered over with a sort of skin.

CASE 2.—Sheik Hyath, Mussulman, aged twenty-six years, admitted on the 13th September, 1873, into the Calicut Civil Hospital, with elephantiasis scroti of ten years' duration. For two years past patient has not been able to stand, owing to the weight and dragging of the tumour, which has commenced to ulcerate at its base, exuding a slight watery discharge.

At the patient's request, I determined to operate, though he was not in the best of health, and had a slight cough. Still life was a burden to him, on account of this huge growth, which would only tend to weaken him if allowed to remain. Accordingly, as in the other case, with Dr. Pout's assistance, the tumour was successfully removed on the 18th September. About thirty ligatures were applied. The steps of this operation were similar to the preceding, but one (the right) testicle, having been found to be diseased, was removed, and the vessels of the cord tied. The weight of this tumour proved to be 61 lb.

The case from the first did exceedingly well, complete recovery and retraction of the remaining testicle rapidly taking place.

Remarks.—This form of growth is occasionally seen in the United Kingdom, the largest tumour successfully removed in that country having been done by Mr. Liston, in Edinburgh. In this case, however, the testes and penis were removed. The weight of the tumour was 44 lb. An interesting case of one weighing nearly 30 lb. is published from the pen of Dr. Wiblin in the Transactions of the Medico-Chirurgical Society for 1863; the man, however, died soon after the operation. Dr. Fayrer, first surgeon Calcutta Hospital, in his work on Clinical Surgery in India, records a number of cases in which he has operated with good results in most of them.

CASES OF

FLEXION OF THE UTERUS TREATED BY THE NEW INFLATABLE STEM PESSARY.

BY WM. ROSS JORDAN,

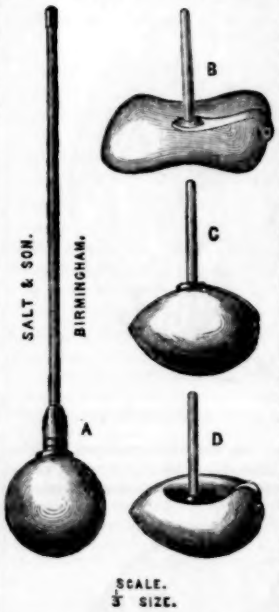
SURGEON TO THE HOSPITAL FOR WOMEN, BIRMINGHAM.

THE following cases have been treated by the pessary I exhibited at the Obstetrical Society in June, and noticed in THE LANCET report of the meeting. As these cases are published simply to illustrate the use of the instrument, I shall report them very briefly.

Miss B——, aged twenty-five, has suffered for four or five years from a very painful anteflexion. She describes the pain as "a grinding pain every step she takes." She has constant desire to pass water. She has used every pessary that I could think of as being at all suitable to her case; almost all relieve her for a time, but either come out from a violent cough she has, or very soon cause pain by pressure on the rectum, &c. I introduced my new stem pessary with great comfort to the patient, and, with the exception of once being forced out by the cough, I heard no more of the flexion. This patient was in the last stage of phthisis, and had been unable to walk for several years without an intra-uterine support; simple vaginal pessaries aggravated the pain.

Mrs. D—— recently had a miscarriage, followed by anteflexion which gave great pain a little above the left groin. The pessary was worn for a short time, with relief to the suffering and cure of the flexion.

Mrs. A——, a thin, nervous woman, had her first child a year ago. She now complains of great pain in the coccyx, and over the pubis, and is unable to walk or to attend to her duties. I found that she had had a fracture of the coccyx, which has united at an acute angle. She has retroflexion of the uterus. All the usual pessaries give pain. I introduced my stem pessary, which has afforded great comfort, and relieved all the unpleasant symptoms excepting those resulting directly from the state of the coccyx. She can now walk and perform her ordinary duties.



Mrs. J—— has suffered from the pressure on the rectum of two large fibroid tumours of the uterus. I raised the tumours out of the pelvis as much as possible, and introduced a pessary *without stem*, to the great comfort of my patient.

The pessary consists of an intra-uterine stem fixed into an india-rubber pad, which is inflated and locked by means of a valve, leaving no external tube. The engraving represents various forms of the pessary (B, C, D) fitted with the metal valve. A, an ordinary india-rubber syringe with metal tube, the end being filed square to fit the square hole of the valve, and to form a key to lock in the air.

The pessaries are introduced collapsed by means of the tube of the syringe, or by long forceps, and are then inflated to the required degree; a slight turn to the right locks the valve and the tube is then removed. It will render the insertion of the inflator more easy if a string be passed through the india-rubber loop to draw down the valve near to the vaginal orifice. The pessaries may be of any shape, so as to meet the needs of any case. Messrs. Salt and Son, of Birmingham, will manufacture the pessaries.

Birmingham.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

HOSPITAL FOR THE EPILEPTIC AND PARALYSED.

A CASE OF HEMIOPIA, WITH HEMIANÆSTHESIA AND HEMIPLEGIA.

(Under the care of Dr. HUGHLINGS JACKSON.)

IT is now well known, thanks to Vulpian and Prevôst, and to Humphry, Lockhart Clarke, Broadbent, Russell Reynolds, and others, that from a *grave* lesion (a large and sudden lesion) of the higher divisions of the motor tract (corpus striatum and optic thalamus) there results hemiplegia, in which there is not only paralysis of the face, arm, and leg, but also deviation of the two eyes and frequently of the head. The eyes, head, and face turn *from* the

side paralysed, because muscles of these parts on the side paralysed can no longer balance those of the non-paralysed side. The patient has lost power to *look* towards the side paralysed.

It is interesting to observe that hemiopia occurs in some cases of hemiplegia, and these cases seem to be the "sensory analogues" of the above-mentioned cases in which the two eyes and the head are deviated. In the one (when the eyeballs are deviated) the patient is unable to *look* to the paralysed side; in the other, when there is hemiopia, he is unable to *see* to the paralysed side. The lateral deviation, with rare exceptions, is a transitory symptom: the hemiopia Dr. Hughlings Jackson has discovered in a few chronic cases of hemiplegia; possibly it is sometimes transitory. Of course, cases in which the hemiopia has come on at the same time as the hemiplegia—cases of a single lesion—are alone spoken of. When the two symptoms are found after a *sudden* seizure, as in the case to be narrated, we may assume that they are owing to a single local lesion.

Dr. Hughlings Jackson has had no autopsy on any case of this kind. But since he thinks hemiopia in cases of hemiplegia may be overlooked, especially when the lateral fields of vision are not blind but only obscured, it is permissible to draw attention to the clinical association. We should examine the field of vision in all cases of hemiplegia when the patient's condition permits. These examinations will be of very limited value unless we at the same time note the *kind* of hemiplegia. In the few cases of which Dr. Hughlings Jackson has notes there has been considerable defect of sensation in the paralysed parts—face, arm, and leg. There has been hemianæsthesia as well as hemiplegia. It is true that in *many* cases of hemiplegia there is some defect of sensation *soon after the attack*, but it is rare to find great loss of sensation in a *chronic* case of hemiplegia; the cases of hemiplegia with hemiopia above spoken of were chronic. Another thing to be noted is, the relative degree of loss of power in which the several paralysed parts suffer. In hemiplegia, the rule is that the arm suffers more than the leg; but in some, at any rate, of the cases of hemiplegia with hemiopia, the leg suffers more than the arm—or, rather, suffers more in proportion than is common.

Dr. Hughlings Jackson, having had no autopsy, refers to the tenth of Charcot's Lectures on Diseases of the Nervous System. From that lecture we take the following:—"In short, we may conclude, I think, from what has been said, that there is, in the cerebral hemispheres, a complex region, lesion of which determines hemianæsthesia. We know approximatively the limits of this region; but, actually, the localisation cannot be pushed further, and no one has the right to say whether, in the region indicated, it is the optic thalamus which is implicated rather than the 'capsule interne,' the centrum ovale, or the third nucleus of the corpus striatum." In "Le Progrès Médical," Nov. 1st, 1873, is a valuable paper by Bourneville entitled "De l'hémianesthésie liée à une lésion d'un hémisphère du cerveau."

Cases like the one to be now narrated have interest with regard to the elucidation of those remarkable cases of migraine in which temporary hemiopia and temporary one-sided sensation disorder are symptoms.

Anæsthesia of the right halves of the two retinæ and corresponding loss of sight in the left fields of vision; hemiplegia of the left side (of the side to which he sees imperfectly); very considerable defect of sensation of that side.—Thomas R——, aged sixty-five, on November 24th, 1871, at 8 P.M., felt sick, and vomited in the backyard of his house. He then went up-stairs, but after three steps he had suddenly to stop, fell against the railing of the stairs, and next became unconscious. He felt as if (with the left foot) he were treading on sponge. He was "unconscious" for two weeks, but whether deeply so all the time is uncertain. He talked in three weeks, but for six weeks he was too ill to be left night or day. We have evidence of a sudden seizure with loss of consciousness, evidence pointing to a "grave" lesion somewhere. The probability is, that that grave lesion is clot, but it is possibly softening from thrombosis of the *trunk* or of a *large branch* of a cerebral artery*—a large branch, because the lesion must have been a very "grave" one.

There has been no albuminuria to support the diagnosis of clot. It is clear, at any rate, that there was a sudden and local lesion of the right side of the patient's brain, and probably the disease is in the hinder part of the optic thalamus. The hemiplegia was discovered when the patient came round from the insensibility, but during the first fortnight it was observed that his left leg and thigh were "as cold as a stone."

March, 1873.—*Examination by* Dr. HUGHLINGS JACKSON.—Motor: There is now no paralysis of any part supplied by cranial (motor) nerves, except that there is a very trifling drawing of the face to the right. The eyeballs and the head move well, in extreme movement in all directions. He can execute all large movements of the upper limb (shoulder on trunk and downwards), but they are all imperfect, feeble, and slow. The leg is more paralysed than the arm; he can walk, however, a great distance.—Sensory: There is great diminution of sensation of the left side of the body, face, trunk, and limbs. This does not follow the distribution of any nerve in particular. The whole of the left half of the head has less feeling than the right, the anæsthesia not being limited to those regions supplied by the fifth nerve. It is to be observed that the defect of sensation does not come *quite up* to the middle line of the trunk; there is about half an inch to the left of the middle line in which the feeling, if not as good, is nearly as good as on the right. (Probably the sensory nerves of the two halves of the body interlace at the middle line. Herpes zoster occasionally passes the middle line slightly.) When severely pinched with the nails on the trunk or arm he has only an unpleasant sensation, and when he is pinched on the hand he feels it up the arm; "up the marrow of the bones" is his expression. He often drops things out of the left hand—e.g., if he places his stick in it in order to open the garden-gate with the right hand, the stick often falls out. He is a tailor. One day when ironing he brought the "nose" of the hot iron against his left hand, and yet had only an "unpleasant sensation," although he discovered later that the skin had been severely burnt; the skin was "pushed up" he said. He accounted for this mishap by saying that he could *not see to the left*. The left leg feels to him cold, and he has, since his illness, slept with one "leg" of a pair of drawers on it. I have at the hospital a series of balls of the same size and appearance, but varying in weight irregularly from one of which the inside is lead to one of covered cork. He readily arranged these balls with his non-paralysed arm, but though he can lift each with the partially paralysed arm, he does not, so he says, know any difference by weight betwixt them. Dr. Tibbits assisted me in investigating the condition of electric sensibility of muscle, but we could arrive at no trustworthy conclusion.

He is a snuff-taker, but has ceased to take snuff up the *left* nostril as "it is of no use," he does not feel it on that side. Snuff, of course, is an irritant, and is appreciated by common sensation, but his snuff-taking is important, as possibly the habit may have blunted the sense of smell proper. It is only possible to say from my examinations that I think his sense of smell proper is diminished. There is, as stated, hemiopia, and this is on the left (i.e., the left fields, the right halves of the two retinæ being affected). This defect of vision he found out when he came round from the insensibility. He occasionally sees only part of a word. He one day saw "land," the real word being "Midland." He remarked to his son that "Liver" was a "queer name," but his son pointed out to him that it was "Oliver." These words were in capitals on carts in the street. I could not come to any conclusion as to taste; if affected on the left side it must be so only slightly. He is said to have been deaf of the right ear thirty-five years, and as to the left, it can only be said that his wife is sure that he does not hear so well as before the illness. He seems to me to hear well on both sides.

1874.—His condition seems to be still practically the same. He has had what was probably a slight paralytic attack early this year, but no clear account of it was obtainable. It left no obvious permanent effects.

* The posterior cerebral artery has, according to Duret (Archives de Physiologie, Janvier, 1874, p. 81), ten branches, of which one is, in Duret's nomenclature, "Artère interne et postérieure de la couche optique," and another "artère moyenne des tubercles quadrijumeaux." Duret's researches are of great value both for the pathology and physiology of the brain.

MIDDLESEX HOSPITAL.

FRACTURE OF THE VERTEX AND PROBABLY ALSO OF THE BASE; CONCUSSION; COMPLETE RECOVERY.

(Under the care of Mr. HULKE.)

THIS case, for the notes of which we are indebted to Mr. Tomes, house-surgeon, shows the value of perfect rest and quiet in the treatment of injuries of the skull, and of taking precautions to keep the subsequent reaction within moderate limits.

J. B——, a servant girl, aged fifteen, was brought to the hospital on June 18th, at 1 A.M., having received severe injuries through falling from a first-floor window, which she was in the act of cleaning from the outside. She moaned, but was insensible, and bled from both nostrils. Pulse 72, small, weak. On examining the head after admission, an irregularity, as though the frontal bone were depressed, was found extending from temple to temple in the course of the coronal suture, the scalp in the same situation being very puffy. There was also a large puffy swelling above the right eye, the lids of which were, moreover, discoloured and so swollen as to prevent the exposure of the eyeball. No paralysis of arms or legs. Before admission into the ward the patient vomited several ounces of blood, and shortly after admission vomited blood twice. The urine, which was drawn off by catheter, was clear. No other treatment but perfect rest and quiet was adopted. At 9 P.M. the patient became more restless, groaning and throwing her arms about incessantly; the right eye and right side of face generally were more swollen; there was also some twitching of the right angle of the mouth, which was observed to be drawn slightly to the right; no more vomiting. Pulse 100; temperature 99·4°.—12 P.M.: The puffiness of the scalp greatly increased, extending and diffusing itself over the forehead anteriorly, and over the zygomatic region laterally. Still restless and moaning; face rather flushed; respiration 36, short; no more sickness and no hæmorrhage from nose or ears. Pulse 96; temperature 99°.

June 19th.—Pulse 96; temperature 98·6°. Was sick once early this morning, and once during the past night, the vomited matter being of a dark-brown coffee colour. General aspect much improved; appears partially conscious, and at times recognises her friends. She slept a good deal during the day, moaning less, and only at intervals. Passes urine; skin hot and dry; no difficulty in swallowing; bowels not open since admission. Ordered three grains of calomel. Towards night vomited again, the vomited matter being less discoloured with altered blood. Still very restless and inclined to wander, but answered a question coherently. Pulse slow, weak, and irregularly intermittent; breathing easier and regular.

20th.—Passed a very restless night, moaning at intervals. This morning pulse is stronger, 96; bowels still confined; skin cooler; temperature 98·6°. Only takes milk in the way of nourishment. Ordered another three-grain dose of calomel. There is now swelling and ecchymosis of the left eyelids and conjunctiva as well as of the right. The late appearance on the left side is a noticeable fact (not until the third day), and Mr. Hulke was of opinion that it pointed to fracture of the base. At 9 A.M., the bowels being still confined, a dose of senna mixture was given. Pulse 100; temperature 98·6°.

21st.—A marked diminution of unconsciousness; asks for water to drink now and then, and has noticed some pictures on the wall opposite. Bowels were opened three times during the night. Pulse 96; temperature 98·6°.

22nd.—A decided improvement this morning; seems to take an interest in what is going on in the ward; asked for some flowers which were on a table near, and, in reply to a question, said she was better; eyelids less swollen; takes milk well, and expressed a desire for some meat. At 9 P.M. complained much of pain in the head and buzzing in left ear. Temperature 98·6°.

23rd.—Eyelids much less swollen; she can now open them pretty widely, disclosing greatly ecchymosed conjunctivæ; complains of pain behind right ear. Pulse 84; temperature 98·8°.

24th.—Continues to improve, with the exception of persistent pain behind right ear; ecchymosis of left lids less, but of conjunctivæ of both eyes the same; bowels open during the day. Pulse 86; temperature 98·6°.

25th.—Ecchymosis of lids rapidly decreasing; that of conjunctivæ the same; is now able to open both eyes fully, and reads at times; pain in right mastoid region continues; the countenance more tranquil; tongue less furred.

26th.—Not quite so well to-day; pain behind ear more severe, but it lessened towards night; during the day she was quite lively. Pulse 80; temperature 98·6°.

27th.—Very drowsy; tongue furred at sides; had rather a sleepless night; complains still of pain behind the ear and also over the vertex. Ordered an evaporating lotion to forehead, and an ounce of senna mixture, as the bowels had not acted since the 24th. Pulse 68; temperature 98·6°.

29th.—Pain at top of head is gone, but that behind the ear continues; ecchymosis of conjunctivæ about the same. She was now put on ordinary diet, which includes six ounces of meat, besides bread, milk, potatoes, gruel, or broth.

July 4th.—Is entirely free from pain; ecchymosis of conjunctivæ very much less; sleeps well. Pulse 72; temperature 98·8°.

7th.—Still progressing favourably; ecchymosis of eyelids quite gone.

16th.—Fully convalescent; ecchymosis has entirely disappeared from the left conjunctiva, and almost from the right; is perfectly free from pain, and feels quite well; gets up.

THE HOSPITAL FOR WOMEN.

CASES OF OVARIOTOMY.

THE following report is continued from page 271.

CASE 21. *Ovarian tumour with adhesions; recovery.*—Sarah B——, aged thirty-five years, was admitted under Dr. Alfred Meadows on December 22nd, 1873. She had been married seven years, and had had two children, the last three years ago. Menstruation first appeared at thirteen years of age, and was quite normal till it ceased two months ago. Twelve months ago she first noticed the abdomen to swell, and it has been steadily increasing till the present time. She has been twice tapped, and three gallons and a half of a reddish-coloured fluid was drawn off the last time. Menstruation ceased after the first tapping two months ago. Interval between the tappings only five weeks. Feels pain at times in the tumour. Her general health is good.

On admission, the abdomen was found occupied by a large tumour reaching rather more than half way between the umbilicus and the sternum, irregular in shape, nodular on the surface, and dull everywhere on percussion. Dulness also in the left flank, resonance in the right. The tumour was noted to be evidently adherent to the abdominal wall, notably so around the umbilicus for a space as large as the palm of the hand. By vaginal examination the cervix was found short and thick, and situated posteriorly, and not much affected by movement of tumour. Uterine sound passed upwards and backwards two inches and a half, and the least pressure on some of the hard portions of the tumour moved the sound in utero. The tumour could be felt per vaginam. The urine was dark, and had a thick, brick-dust and mucous deposit on standing; no albumen.

Dec. 27th.—*Operation* by Dr. MEADOWS. — Chloroform being administered, an incision was made in the middle line from the umbilicus to the pubes; a quantity of ascitic fluid escaped. The tumour was then found to be adherent to the anterior wall of the abdomen and to the anterior surface of the bladder, which required some force to separate them. A small piece of omentum was also adherent, and was tied with catgut ligature, and cut off. The tumour was then tapped to eleven pints and a half, and withdrawn from the abdomen. Some bleeding was noticed from the surface of the bladder, and, after much difficulty, on account of the depth in the pelvis at which the bleeding vessel was situated, it was secured by a ligature. The clamp was then put on to the pedicle, the tumour cut off, and the actual cautery applied to the cut surface. On removal of the clamp, blood escaped from one vessel on one side of the stump of the pedicle, and this was secured by a ligature. A small piece of adhesion which had been separated was brought into the lower part of the wound, and the wound was closed in the usual way. The patient then had, on account of having lost much blood, and being very weak, an injection of one ounce of brandy with three of beef-tea immediately given him per rectum.

At 12 A.M. she had a subcutaneous injection of morphia of the third of a grain to relieve the pain and soreness of the abdomen. At 2 P.M. she was much better, and was ordered to take one minim of tincture of aconite in a teaspoonful of water every quarter of an hour for six doses, and then every half-hour till the skin perspired. In the evening she had no pain; the water drawn off was quite clear; she had retched three times, but only vomited once; and after the third dose of the aconite she fell asleep and perspired freely.

From this day she had no bad symptoms. The sutures were removed on January 2nd, 1874. There was some little suppuration in the tract of some of the sutures; otherwise quite well. She had some oysters, and enjoyed them very much.

On the 16th of January she got up for the first time, and on the 2nd of February was discharged quite well, the wound having entirely healed.

CASE 22. *Ovarian tumour; operation; recovery*.—Charlotte S——, aged twenty-two, single, was admitted under Dr. Alfred Meadows on the 11th of December, 1873. She was suffering from pain in the left side of the stomach, and she had noticed that the stomach had been getting larger for the last five or six months, that the swelling commenced on the right side of the abdomen, and for the last two months had been getting larger more rapidly than before. She could not lie on either side, as it caused pain. Catamenia first came on when she was fourteen years of age, and she had always been regular; they were painful till two years ago, but not at all so since. Her general health was good. The urine pale and no albumen in it.

On examination the abdomen was found distended by a soft, elastic, fluctuating tumour; dulness on percussion over the whole of the tumour, and resonance in the flanks. On the right side, low down, was felt a solid mass, and above another mass of the same character. No tenderness anywhere. There were irregular red lines on the abdomen, running up to the pubes. The measurement of the abdomen was 36 in. midway between the umbilicus and the pubes, 34½ in. at the umbilicus. By vaginal examination the cervix was found small, and situated high up and posteriorly. Tumour only to be felt in the anterior cul de sac on deep pressure. Fluctuation very distinctly felt on percussion, transmitted from tumour in the abdomen to the mass in the anterior cul de sac of the vagina.

Dec. 27th.—*Ovariotomy* by Dr. MEADOWS.—Chloroform having been administered, the usual abdominal incision was made between the umbilicus and pubes, the cyst exposed, tapped, and afterwards withdrawn. There was an adhesion to the omentum, which was tied with catgut and cut off. The pedicle was then transfixed and tied, and returned into the abdomen, and the wound closed with silk sutures, and treated in the same way as in the previous cases.

The patient did very well after the operation; never had any symptom to give rise to any anxiety. The temperature never rose above 100·2° F., and the pains which she had in the abdomen afterwards were relieved by an enema of twenty minims of tincture of opium given once or twice the first two or three days, and the sickness stopped by two or three doses of dilute hydrocyanic acid in an effervescing mixture. On the sixth day the sutures were removed; the wound was united, and looked well. On the seventh day she had a dose of castor-oil, which acted without any pain, and for a change removed to another bed in the ward, and she had a chop for her dinner, and went on very well till the twelfth day, when some suppuration was discovered in the lower part of the wound; some pus was let out, and it soon got better. The patient left the hospital on Feb. 3rd, 1874, feeling well.

KING'S COLLEGE.—A daily contemporary states that the Governors of King's College are now engaged in enlarging the accommodation of the present building. A new wing, one storey high, in a similar style of architecture with Somerset House, and fronting the Thames Embankment, is being rapidly pushed forward. In the rear the dissecting-room and laboratory are being considerably enlarged, and new consulting-rooms and offices erected. The students' rooms are undergoing material alteration and improvement, and a new and commodious drawing school is in course of construction. It is expected that the whole will be completed in time for the winter session.

Reviews and Notices of Books.

The Correlation of Physical Forces; with other Contributions to Science. By the Hon. Sir W. R. GROVE, M.A., F.R.S., one of the Judges of the Common Pleas. Sixth Edition. London: Longmans. 1874.

THE law of conservation of force, or, in other words, the doctrine that the various forces in constant operation around us—light and heat and chemical affinity and electricity and motion,—are all correlated to one another; that none can be annihilated and none created, though they are mutually convertible into each other,—is, as Brücke has well said, the grandest generalisation that has been made since the law of gravitation was propounded by Newton. It is perhaps impossible that any great step in advance such as this can be made by one man: as a rule, many lines of thought and experiments converge upon it—many hints are thrown out and suggestions made before the central fact is seized; and it is not surprising that, when the general progress of knowledge is ripe for the discovery and expression of such a law, it should be grasped by several independent workers, each of whom lays claim to all the glory of first perceiving it. Dubois Reymond, in his history of the gradual development of this law, shows that it was expressed, though not quite correctly, by Descartes, that his errors were pointed out by Leibnitz and Bernouilli; that the subject engaged much attention and was frequently discussed by Voltaire and his lady-love Du Chatelet; but that it was first definitely laid down by Julius Robert Mayer, though his observations received little notice till restated and extended by Helmholtz. [Mayer's paper appeared in 1842; but Sir W. R. (then Mr.) Grove had already delivered a lecture, which was subsequently published as an essay, in which nearly all Mayer's conclusions had been arrived at by a different train of reasoning; and we do not think Sir W. Grove is in the slightest degree overstating his claim as the discoverer of the law of the correlation of physical forces when he observes that he believes himself to have been "the first who introduced this subject as a generalised system of philosophy, and continued to enforce it in his lectures and writings for many years, during which it met with the opposition usual and proper to novel ideas."

Sir W. Grove commences with motion, and considers in succession heat, electricity, light, magnetism, chemical affinity, and other modes of force. In the case of each of these he shows what are its relations, and how it may be converted into any of the others, and by appropriate means reconverted into the original force. Throughout he labours to show that all these various forces are not separate entities, but affections of matter—not movements of an ethereal medium, as we express by the term current of electricity, but undulations of the atoms of matter itself. Though fully abreast of recent advances in each department of natural science, Sir W. Grove is no mere compiler, but introduces many original experiments he has himself performed in illustration of his views. To give an example. In pointing out the molecular changes capable of being produced by electricity, he refers to Karsten's experiment by which the impression of a coin may be obtained upon glass, and then gives the following remarkable experiment by which the images produced by electricity may be fixed. Between two carefully cleaned glass plates is placed a word or device cut out of paper or tinfoil; sheets of tinfoil a little smaller than the glass plates are placed on the outside of each plate, and these coatings are brought into contact with the terminals of a Ruhmkorf coil. After electrisation for a few seconds, the glasses are separated, and their interior surfaces exposed to the vapour of hydrofluoric acid,

which acts chemically on glass; the portions of the glass not protected by the paper device are corroded, whilst those so protected are untouched or less affected by the acid, so that a permanent etching is thus produced which nothing but disintegration of the glass will efface. He then proceeds to show that by appropriate means a collodion photographic image may be obtained from it, and, singular to relate, that when the collodion layer is separated, it will be found to have had the molecular change communicated to it, which is undoubtedly of a chemical nature. Electricity has thus in this experiment so modified the surface of glass that it can in its turn modify the structure of another substance so as to alter the relation of the latter to light. Such experiments are found in every section.

He gives a capital example of the correlation and mutual interdependence of the various forces in sulphuret of antimony. When this substance, he says, is electrified at the instant of electrisation it becomes *magnetic* in directions at right angles to the lines of electric force; at the same time it becomes *heated* to an extent greater or less, according to the intensity of the electric force. If this intensity be exalted to a certain point, the sulphuret becomes luminous, or *light* is produced; it expands, consequently *motion* is produced; and it is decomposed, therefore *chemical action* is produced. Thus, with some substances, when one mode of force is produced all the others are simultaneously developed. In another section (on Light) he gives another very pretty experiment, in which a daguerreotype plate, before which is a gridiron of silver wire, is connected with a galvanometer. Here *light* being the initiatory force, we get *chemical action* on the plate, *electricity* circulating through the wires, *magnetism* in the coil, *heat* in the helix, and *motion* in the needles.

Every reader must be struck with the sober, dispassionate tone of the book throughout; there is little enthusiasm, but the facts are marshaled with wonderful address in logical order; the tone is everywhere that of a judge, not of an advocate, and in this respect contrasts very strikingly with the singular treatises published by various modern spiritualists in support of their extraordinary views. Nevertheless, the author does not hesitate to give expression to the most daring speculations, as when, in speaking of the possible different effects of light on other planets and stars, he says: "Reasoning from analogy or final causation, we may feel convinced that the gorgeous globes of the universe are not unpeopled deserts." And elsewhere: "It seems to me no extravagant thought that a time may come when, from what will be known of the characteristics of some of the planets, a reasonable hypothesis of the character of their inhabitants may be framed."

In addition to the essay on the Correlation of the Physical Forces, the present volume contains Sir W. Grove's address on Continuity, delivered when he was President of the British Association, in 1866, and which must be fresh in the minds of many of our readers, but which has been, if we mistake not, somewhat expanded and improved from its original state; and finally there are thirty-nine separate papers which he has contributed to different journals, or which he has delivered in the form of lectures. Some of these are extremely interesting, even to the general reader, and we may in particular single out the Bakerian Lecture for 1846, on the Decomposition of Water by Heat; a paper on the Electro-Chemical Polarity of Gases; another on the Effects of Heat on Fluids; and a third on Artificial Rocking Stones. All these are characterised by the same careful observation and close reasoning that have given so great a value to all Sir William Grove's scientific work, and which may well be taken as a model by the young experimenter.

OUR LIBRARY TABLE.

Water Analysis. By J. A. WANKLYN and E. T. CHAPMAN. Third Edition. Entirely rewritten by J. A. WANKLYN, M.R.C.S. &c. Trübner. 1874. — The present work, and the methods it describes, invented for the most part by Mr. Wanklyn and his coadjutor, are well known, and have been of very great use, especially to medical men. The methods are easy of execution, most of them are thoroughly trustworthy, and all are trustworthy within limits which admit of something like definition. Taken altogether, they afford a means of judging of the qualities of a sample of water which, for all ordinary purposes, is sufficient. They will never convict a good water, and will never acquit a very bad one. In the present edition some valuable additions have been made in the text, and the work has been to a great extent recast. We regret to have to repeat our entire dissent from some few of Mr. Wanklyn's views. Unfortunately he cannot be contented with extolling his own methods and his own ideas, but must embrace every opportunity of attacking those of Dr. Frankland. Had he been satisfied with saying of Frankland and Armstrong's method that it was difficult of execution, too difficult to yield accurate results in any but experienced hands, too difficult to be used except in cases of necessity, we should have agreed with him; but when he goes on to say that the method in question is "thoroughly untrustworthy," we are compelled by our own experience, and that of many others, to assert that he is entirely mistaken. The arguments which he adduces on page 21 are specious but shallow, and have received new and complete refutation from the recent labours of Dr. Bischoff. So in regard to the nitrogen present as nitrates and nitrites. All new evidence tends to confirm the opinion so often expressed, that such nitrogen is derived even in chalk waters, and still more certainly in other waters, from the oxidation of "sewage or other animal contamination." If people persist in misunderstanding the meaning of very simple language, the fault clearly does not lie with those who use it.

Lancashire Worthies. By FRANCIS ESPINASSE. London: Simpkin and Marshall. 1874. — With a freer and finer literary touch, the author of the "Life of Voltaire" has done for the worthies of Lancashire what Dr. Lonsdale has done for the worthies of Cumberland. Mr. Espinasse is evidently accustomed to literary and antiquarian research, and has a keen eye for local humours, as they are called, and special types of character. The county on which he has chosen to exercise these gifts is one in all respects worthy of consideration. There is scarcely a department of intellectual or moral enterprise in which Lancashire has not sent a man to the front. True, she has been stronger in the more masculine, if less refined, pursuits of science and industrial improvement than in literature and art; but even in these Mr. Espinasse adduces ample evidence that the faculties for producing first-rate work have not been wanting, but have been deflected into more absorbing channels. His worthies include such various characters as "The First Stanley, Earl of Derby"; "Hugh Oldham, the founder of the Manchester Grammar School"; "John Bradford, saint and martyr"; "Jeremiah Horrocks," "Humphrey Cheetham," "The First Member for Manchester," "James Stanley, Seventh Earl of Derby," "Booth the Player," "John Byrom," "John Collier (Tim Bobbin)," "The 'Great' Duke of Bridgewater," "John Kay and James Hargreaves," and "Richard Arkwright" — in all "a goodly army." Lancashire appears in his pages, if sometimes an "arida nutrix," at all times a "nutrix leonum," and the reader gazes on this portrait and on that with divided feelings — now recognising the

slow rise of worth by poverty depressed; now seeing craft and boldness win the day; now finding that genius and patience have had their reward deferred till after their forthputter's death. In this respect Mr. Espinasse's work is a much healthier one than "Smiles's Self-Help," which seems written to apotheosise mere "success," taking no account of the noble failures of which all history is full. His "Lancashire Worthies," in fact, are an excellent study for youth, teaching how to bear the cloud and how to enjoy the sunshine of fortune. The sketches of the First and of the Seventh Earl Derby are exceedingly interesting, apart from, but still more in connexion with, the political career of their last two descendants; while the lives of "the 'Great' Duke of Bridgewater," of "John Kay and James Hargreaves," and, lastly, of "Richard Arkwright," are admirable specimens of industrial biography. Our medical readers will be interested in the sketch of John Byrom; and readers of every degree will find much to entertain and little less to instruct in each chapter of "Lancashire Worthies." Would that every English county had as effective a biographer as Mr. Espinasse; would that every English county deserved it like Lancashire.

Miller's Elements of Chemistry. Part II. Inorganic Chemistry. Fifth Edition, revised by HERBERT MCLEOD, F.C.S. Longmans. 1874.—Dr. Miller's book will not easily be displaced from public favour. It possesses the great merit of being at once full, practical, trustworthy, and readable. In the last respect few English scientific manuals have ever equalled it, for although it contains nothing of what is commonly called "fine writing," the theories and facts of the science are stated with such lucidity and elegance of language that they afford quite easy reading. The premature death of the distinguished author has compelled the publishers to select for this edition a new editor. They are singularly fortunate in the choice they have made. Prof. McLeod has accomplished with great skill the difficult task of adapting the work to the present state of chemical knowledge, without destroying its character. The new classification of the elements, which was essential, has been made, almost every important discovery has been incorporated, and yet the book is hardly altered in size, and remains, as it should do, "Miller's Elements." It is almost impossible by the style to detect the new additions, which nevertheless are very numerous. Greater praise could hardly be given to an editor.

Introduction to the Study of Organic Chemistry. By HENRY E. ARMSTRONG, Ph.D., F.C.S., Professor of Chemistry in the London Institution. Longmans. 1874.—This also is an excellent introductory text-book, though of a kind quite different from that of the preceding. It is intended "to assist the systematic study of carbon compounds," that immense and ever-extending branch of chemistry. It is a book for the study rather than for the laboratory, though there is much practical matter in it and it professedly deals in general only with those compounds the constitution and relationships of which are to a greater or less extent known. The limits of the work have compelled the author to omit many important compounds and series which properly come under its plan. Thus the uric acid group is left out, obviously from necessity, and many other examples, though few so important, could be cited. The modern arrangement has of course been adopted throughout the book. First come analysis, calculation of formulæ, &c.; next a chapter on classification; and next a very useful one on the general action of reagents. The following chapters are headed as follows: Carbon, Hydrocarbons, Alcohols, Ethers, Aldehydes, Acids, Ketones, Amines, and Organo-Metallic Compounds. Under each class general methods are given, with some short account of a few of its leading members. It would have been difficult to crowd more information into the pages, and everything has been done by the author to facilitate the progress of the beginner in this difficult branch of science.

Poetical Compositions: including Tartarus, Elysium, Elijah, &c. By ROBERT DICK, M.D., C.M. Third Edition. London: Published by the Author.—Without being either an Armstrong, still less an Akenside, and least of all a Goldsmith, Dr. Dick is not unworthy to rank fourth among the doctors of medicine who, for the last hundred years or so, have cultivated the didactic muse. He is evidently a man of more than average accomplishments in literature and art, a strong, if not always a discreet, philanthropist, and an ardent lover of freedom. In the last respect we see him at his best in four spirited stanzas addressed in July, 1848, to Metternich, when that great, though absolutist, statesman had to take flight from Austria in the general cataclysm of 1848. We quote the third and fourth stanzas:—

"For Austria and Europe blessed the hour,
Tho' late, which saw thee ignominious fly,
Chased from the helm of long-abasèd power;
Hoary at once in years and infamy!
Heaven dooms (fit penalty) thine aged eye,
(Ere closed upon the world thou wrong'dst) to see
The o'erpowering march of victor liberty.
While the sky-rending shouts of men made free
Thunder from Lombard shores to Scandinavia's sea!

"When I beheld last autumn's vintage sun
Gild the green slopes of thy fair dwelling-place,
Where smiling Rhineland sees its river run,
Flooring with flashing foam the interspace
Of rocky hills that o'er it sternly gaze,
I heard thee loathed by thine own countrymen,
As one, tho' high in state, in nature base,
Nor deemed we how thy ruin came apace!
Now that the power of ill is from thee ta'en,
May penitence, old man! wash out thy life's foul stain!"

The lines we have italicised have the true Byronic ring. At pp. 239-40 we have an ingenious and fluently versified illustration of the thesis that "Disease is Nature working for the best." But, to our minds, the most entertaining part of the venerable author's book is the autobiography, in which he gives an account of the *beau monde* of the Regency, interspersed with anecdotes of the wit-encounters at Holland House. It is this, we suspect, as much as its poetry, and still more than its somewhat viewy social doctrines, that made Aston Key say to its author: "Among all the books I possess, your little volume is the one that accompanies me most constantly in my carriage.

A Manual of Inorganic Chemistry. The Non-Metals. By T. E. THORPE, Ph.D., F.R.S.E., Professor of Chemistry in the Andersonian Institution, Glasgow. Collins. 1874.—This is one of the best small text-books on chemistry we have ever seen. The quantity of matter it contains is quite remarkable, and the information is brought down to the latest stage of chemical discovery. Like Prof. Thorpe's other works, it abounds with manipulative details, the value of which is enhanced by good illustrations. We may refer to the sections on ozone, on the hydrocarbons and flame, and on iodine, as examples of the care with which recent discoveries are introduced, and the clear and practical directions which are given. The publication of this manual might justify the University of London in raising the standard of chemistry in their Matriculation examination.

BEQUESTS TO MEDICAL CHARITIES.—Mr. Walter Tucker, of Weston-super-Mare, has bequeathed £500 each to the Bath Mineral Water Hospital, the Bath Royal United Hospital, the Bath Eastern Dispensary, the Southern Dispensary, Widcomb, the Bath Eye and Ear Infirmary, the Weston-super-Mare Hospital and Dispensary, and the Royal Hospital for Incurables, Putney.

AN INTERNATIONAL EPIDEMIOLOGICAL COMMISSION.

THE final work of the International Sanitary Commission was to formulate a scheme for a permanent International Commission on Epidemics, and to relegate to this Commission, should it become a fact, certain communications made to the Conference respecting yellow fever. The reasons advanced for the establishment of this Commission are given by the committee to which the proposition was first submitted, in the introductory observations to their report. They state, first, that notwithstanding the great progress made of late years in our knowledge of cholera, this knowledge is still very incomplete regarding several important questions. Again, the prophylactic measures in use against cholera do not meet sufficiently the requirements of science. From whatever point of view the subject is approached, the want of systematically conducted scientific observations on the debated points is felt. The questions, scientific and practical, are of international interest, and their further study would be best approached by researches based on a uniform plan by international agreement.

Accepting this view of the question, the Conference unanimously affirmed a scheme for the establishment of a permanent International Commission for the study of epidemics. This scheme is as follows:—

1. The Commission to be instituted in Vienna.

2. The functions of the Commission to be purely scientific, and consultative on scientific questions relating to epidemiology. The principal object of the Commission to be the study of the etiology and prophylaxis of cholera. Other epidemic diseases will, however, be included in its operations. In pursuance of its duties, it will form a programme comprehending the researches which ought to be undertaken by all the assenting States with regard to the etiology and prophylaxis of cholera and other epidemic diseases. The results of its labours will be made public, and it will rest with it, if occasion should arise, to propose the convocation of international sanitary conferences, undertaking the duty of preparing the programmes of such conferences.

3. The Commission to consist of delegates from the participating States, and to have a fixed staff charged with carrying on the work and recording the deliberations of the Commission. The nomination and composition of this staff to rest with the general Commission. The Governments of the participating States to instruct the various sanitary authorities under their control to furnish to the Commission such information as they may possess relating to its particular studies.

4. The necessary expenses of the Commission's operations to be divided among the participating States as may be arranged among the States.

5. In countries where no sanitary service is organised, temporary sanitary missions or fixed sanitary posts to be organised, with the consent of the local governments. These missions or fixed posts to be created according to the suggestions of the International Commission, to receive from it their instructions, and to report to it.

In addition, the Conference advises that an International Board of Health, similar to the boards which have worked so well at Constantinople and Alexandria, should be instituted in Persia. Such a board of health would, in the opinion of the Conference, furnish important data for ameliorating the condition of the country, and would prove also an influential agency in the protection of Europe against extensions of epidemics from Persia.

With regard to the preliminary researches of the Commission, the Conference suggested that it should give attention to the following questions:—

1. The systematic study of the rainfall and evaporation over a series of years at the following stations:—Bendar-Bushire, Ispahan, Teheran, Tabriz, Suez, Alexandria, Astrakhan, Baku, and Tiflis.

2. The scientific study of the telluric conditions of those different cities.

3. A more exact examination, conducted with greater regard to scientific analysis, of the appearance and propagation of cholera in ships. These researches to be instituted provisionally on much-frequented lines of traffic, namely: Calcutta—Mauritius; Alexandria—Malta; Alexandria—Marseilles; Southampton—North America; Hamburg—New York; Singapore—Aden—Jeddah; Calcutta—Aden—Jeddah; Bombay—Aden—Jeddah; Naples—Venice.

4. To ascertain the first cases of each epidemic of cholera which occurs in different localities, and especially in the maritime ports of Europe, and to bring together the elements of a complete statistic relative to the progress of cholera in Europe.

5. To determine by scientific facts the precise duration of the incubation of cholera.

The Conference closed on the 1st August, having held twenty sittings, including its final meeting. The president, in bringing the proceedings of the Conference to an end, after complimenting the members on the happy spirit which had reigned among them, observed that, as to the scientific portion of its programme, it had confirmed the conclusions of the Conference of 1866. As to prophylaxis—that is to say, the chief question which the Conference had to consider,—a compromise had been effected between the advocates of medical inspection and the advocates of quarantine as far as Europe was concerned. The Conference had been unanimous for the maintenance of quarantine at certain points (the points of irruption of cholera) beyond the limits of Europe; it had disapproved of land quarantines; and had equally disapproved of river quarantines except in certain circumstances, or the mouths of rivers. Finally, the difficult question of framing a practicable scheme of an International Epidemiological Commission had been overcome.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

MEETING HELD AT BELFAST AUGUST 19TH TO 26TH, 1874.

PROFESSOR TYNDALL, PRESIDENT.

THE British Association has held its annual meetings four times in Ireland, out of the total number of forty-three, since its formation in 1831; this includes one at Belfast in the year 1852, when it was attended by 1108 members. The population of the city has nearly doubled since then, being now 174,394, and as it is a large centre of manufacturing industry, it was naturally expected that in its results the present meeting would not be inferior to its predecessor of twenty-two years back, both in point of numbers and in general interest, and such has proved to be the fact.

On the whole, the amount of physiological and anatomical matter brought before this meeting of the Association was less than usual, to be explained probably by the absence of some of the usual well-known labourers in this field. This year Dr. Ferrier was not present, who received a grant of money last year to continue his well-known researches, a report of which will be ready possibly for the Bristol meeting next year. The Biological Section was as usual divided into three departments, that of Anatomy and Physiology being presided over by Professor Redfern, that of Zoology and Botany by Dr. Hooker, and that of Anthropology by Sir Wm. Wilde. Introductory addresses were delivered by each, possessing great merit and interest.

In the first of these a report was read by Dr. Pye Smith of the committee appointed last year to investigate the nature of intestinal secretions. They endeavoured to ascertain, first, whether other neutral salts had a similar effect to that of sulphate of magnesia on intestinal secretion; secondly, whether any other compound had the power of preventing such action; and thirdly, what were the nerves which regulated those secretions during life. The experiments showed that several other neutral salts possess a similar action to that of sulphate of magnesia, though none are so constant or so marked in their action. With regard to the second subject of inquiry, experiments were made

with sulphate of atropia, chloral hydrate, and other substances, but in none was any effect observed in diminishing the average amount of secretion produced by sulphate of magnesia; there appeared, therefore, to be no action analogous to that of atropia upon the secretion of the submaxillary gland. With reference to the third point, it appeared from experiments on the splanchnic nerves, that those nerves are not the channel by which the currents from the cord pass to the secretory apparatus of the intestines. What that channel is, the committee propose to ascertain by further investigation, which it was intended to apply not only to the secretion, but also to the movements of the intestinal tube.

"The Decomposition of Eggs" formed the subject of a paper by Mr. William Thompson, of Manchester. His researches were commenced conjointly in 1870 with the late Dr. Crace Calvert, and thence extended. From innumerable experiments he drew the following conclusions, which we give entire from their importance:—Whole eggs could only be attacked by one, two, or all of three different agencies of decomposition. The first, which he termed putrid cell, is capable of being developed within some eggs no matter how effectually their shells be protected from the spores floating in the atmosphere by varnished coverings. It is generated from the yelk. In some cases the yelk begins to swell, and absorbs most of the white; in others the yelk bursts, and its whole substance becomes thoroughly mixed up with the white; and in others again it begins to change slightly, and then gives off minute cells into the white, rendering the white turbid; but in all cases where this takes thorough hold of the contents of the egg, true putrefaction commences, and the albumen emits a putrid smell. The minute granules or cells of the healthy yelk, when this decomposition commences, assume a morbid vitality; they grow large, and become filled with small cells; each large cell then bursts, and the smaller cells take independent existence. These cells are the bioplasm of the yelk, which, had the egg developed into a chicken, would have gone to form its flesh, bone, and tissues. These cells, under their morbid vitality, absorb oxygen, and liberate carbonic-acid gas, like animalculæ, but, unlike animalculæ, they can develop without that gas. Two eggs had their shells well varnished over with shellac, and were set aside on a shelf for one year, and both then opened. One appeared as fresh as the day on which it was set aside, but when the other was struck with the point of a knife to open it, the pressure of gas contained within the shell burst out, and scattered parts of its contents in all directions. The next germ of decomposition—the vibrio—appears under the microscope like a small rigid worm which swims about. These animalculæ are constantly found floating about in the atmosphere, but never penetrate into the contents of an egg if the shell be kept dry; but if the shell be moistened or wet, the dried bodies of these animalculæ develop in that water, assume much vitality, and then penetrate the shell and set up putrefaction. Eggs were placed in fluids swarming with different animalculæ—some like corkscrews, which swam by, quickly turning round; others which appeared under the microscope like flukes, but which really had the form of an egg; some with one, some with two feelers, which swam by switching these feelers into a quick serpentine motion in front of them. These, however, were not able to penetrate the shell of the egg. The third is the fungus decomposition. The spores of this fungus are found everywhere floating in the atmosphere. They settle on the shells of eggs placed in stagnant atmospheres, and send myriads of filaments through the shell in all directions, sometimes binding all sides of the shell together, in all cases converting the white into the consistency of a strong jelly; and often the filaments grow in such immense numbers as to make the whole contents appear like a hard-boiled egg. It is strange that this fungus acts on the air exactly like animalculæ, absorbing oxygen and liberating carbonic-acid gas.

Professor Cleland, of the Galway College, brought forward a "Preliminary notice of some Inquiries into the Morphology of the Brain and the function of Hearing." An abstract of this can scarcely be given without some of the numerous diagrams exhibited, but in the course of discussion by Professor Huxley and Dr. Carpenter, the question of development was broached, the former maintaining that the question in discussion was only soluble by a study of the process of development; but Prof. Cleland, on the other hand, contended that by taking an embryological view of nature, we were in the position of looking at an unfinished work, instead of studying the completed temple of nature.

"Some Anomalous Forms of the Human Periorbital Bones" were described by Professor M'Alister. He exhibited a skull in which the malar bone articulated with the lachrymal—an arrangement only found in the lowest mammalia. In the lowest races of mankind, he said, the very opposite condition seems to prevail, as the malar bone terminates further out than usual.

"Additions to the British Mollusca, and Notices of Rare Species from Deep Water off the Western Coast of Ireland," was a communication by Mr. Gwyn Jeffreys, in which he gave the result of his own researches in that department of natural history during his cruise in H.M.S. *Porcupine* off the western coast of Ireland during the summer of 1869. 47 new species were added to conchology, besides 11 which had previously been known only as fossil, and were supposed to be extinct; 84 species were new to the British seas, and 124 to Ireland. The depths at which he procured these species ranged from 20 to 1470 fathoms. — Dr. Carpenter called attention to the importance of the question of temperature and currents as affecting the distribution of the marine fauna. — The President, Dr. Hooker, spoke in high terms of the great patience and assiduity displayed by these two gentlemen in their labours in that particular branch of investigation.

A paper was read in the Anthropological department on "Longevity at Five Score Eleven Years," by Sir Duncan Gibb, which might have been introduced with propriety before the Physiological. He had brought forward the subject of Centenarian Longevity at some previous meetings, in which he gave the results of his examination of nine instances of persons who had overstepped the century, in which he had described their physical condition and the absence or apparent arrest of senile changes. His tenth instance, the subject of the present paper, was that of Elizabeth Leatherlund, living at Tring, who reached the age of 111 in April of this year. The point to be proved, firstly, was the accuracy of the age, and, besides the certificate of baptism from the Dover parish register, an account was given of the catastrophe in the Medway in 1853 at Hadlow, in Kent, wherein some thirty-seven hop-pickers lost their lives. Copious details of this occurred in the papers of the time, and among those who were drowned were Samuel Leatherlund, aged fifty-nine, a son of the old woman, together with his wife and several children. If he had been now alive his age would have been eighty or eighty-one, his birth occurring when his mother was twenty-nine or thirty years old. This last, with other corroborative circumstances mentioned by the author, established the correctness of the great age of the old dame, who was of gipsy descent, and whose husband had been a soldier. Her physical condition, the result of a careful personal examination at Tring by the author, coincided with that of the nine other centenarians—that is to say, senile changes affecting the bloodvessels, cartilages of the ribs, and other parts of the body in which they usually present themselves, were absent. She was feeble, but, taking all things together, that did not prevent her reaching to her present exceptionally great age. She was in possession of all her faculties, though somewhat impaired, and all the internal organs of the body were in a perfectly healthy condition, the pulse at the wrist being regular and soft as in a girl of eighteen. The countenance was a series of thick folds, and so was the body, and she had several perfectly sound teeth.

An animated discussion followed, in which it evidently appeared that there was a larger number of genuine centenarians than was usually supposed, and Sir Wm. Wilde mentioned that in the late census, as applied to Ireland, the relative proportion of the population said to be 100 years or more far exceeded that shown on any previous occasion.

Of other subjects worthy of mention were a "Report of Committee on the Chemical and Optical Properties of Essential Oils"; "Some Opium Derivatives," by Dr. C. R. Wright; "Cause of the Potato Disease, and the Means of its Prevention," by Mr. J. Torbitt; and "Report of the Committee on the Influence of Forests on Rainfall."

(To be concluded.)

THE LANCET.

LONDON: SATURDAY, AUGUST 29, 1874.

THE members of the British Association for the Advancement of Science, which has this year met at Belfast, appear to have had a pleasant meeting. Fair weather, a goodly company, distinguished speakers, and agreeable excursions, have contributed to make the time pass quickly away. The President's address, delivered by Professor TYNDALL, may be regarded as having for its subject the relation and attitude of modern science to religion. The subject was undoubtedly a delicate one to handle before a mixed audience, many of whom probably had strong convictions; but, upon the whole, the topic was tenderly yet bravely dealt with, the views entertained by the Professor being clearly enunciated, yet in such language that few, we imagine, could take offence at them. He commenced by reviewing the opinions of the ancients—of DEMOCRITUS, of EMPEDOCLES, of LUCRETIUS, and of EPICURUS—in regard to the constitution of matter and the mode in which it was first produced, and showed how closely they in some respects approximated a modern school of thought in maintaining that there is an imperishable substratum of atoms by the mutual action and interaction of which, subject to general laws, not only organic forms, but sensation and thought and all the phenomena of the material world, are produced. These conclusions were, however, almost entirely the results of abstract thought, and rested but little, if at all, upon experimental evidence. During the darkness of the middle ages no progress was made—at least by the European nations; though the torch of intellectual activity was borne aloft by the Arabs. With COPERNICUS a new era commenced, and from that time the slender stream of truth, almost lost amidst the mazes of the scholastic philosophy, has gradually broadened to the mighty stream of to-day. The atomic doctrine, the Professor tells us, was held, wholly or in part, by BACON, DESCARTES, HOBBES, LOCKE, NEWTON, and BOYLE; and, though there have been some secessions from it, it still, he thinks, stands firm.

From the consideration of the actions of atoms the transition is easy to the question of the origin of life. Has every plant and every animal now inhabiting the world, have all the myriads shown by palæontological research to have once existed, been severally and individually the result of a creative fiat of a Supreme Being?—or is it possible that the forces ordinarily acting on the atoms of matter may generate low forms of living matter which, in the course of long periods of time concurrently with the continued action of the same forces which originally produced it, may attain by differentiation of tissue and organs to higher forms till man himself is reached? The theory of DARWIN deals, indeed, but little with the origination of life; but diminishing the number of ancestral types the writer arrives at length at one primordial form. Yet it is as difficult to explain the production of this on the special-creation hypothesis as of all. The step to the view that life is a product of material causes is not a great one, and some have already taken it; whether it will be supported hereafter by rigorous experiment is another matter.

The Professor wound up with a peroration in which he powerfully advocated intellectual freedom and the right of science to inquire into all things that pertain to the psychical as well as physical nature of man; whilst he acknowledged that in religion an emotional side of our nature is touched which the understanding can never satisfy, and it is "to yield this sentiment reasonable satisfaction which is the problem of problems at the present time."

Sir W. WILDE, as President of the Anthropological Department, gave an account of the early races of mankind in Ireland. He described in succession the oval-headed Firbolgs, who were shepherds and agriculturists: small, dark-haired, talkative, unsteady, promoters of discord, they have left an enduring trace in the national character; they buried their dead. They were followed by the Tuatha-de-Dannans: a large, fair-complexioned, warlike race, energetic, musical, poetical, acquainted with the healing art and metallurgy, they, too, have contributed their share to the formation of the Irish nation; these were burners of their dead; and were succeeded by the brave and boastful Milesians. Sir WILLIAM tells us the entire Irish-speaking population is now little more than 800,000.

Sir JOHN LUBBOCK gave what must have been a most interesting lecture, "On Common Flowers in relation to Insects," showing to how great an extent the persistence of certain flowers is due to fertilisation effected by pollen carried on the backs and wings of insects; and also how the brilliant colours, the sweet scent, and the honey of flowers have been gradually developed by unconscious selection of insects.

The last lecture was delivered on Monday evening by Professor HUXLEY, who, in an able address, gave an outline of DESCARTES's views on Physiology, which he showed constitute the foundation of all that is known at present of the physiology of the nervous system and of the relation between physical and mental phenomena. He particularly referred to DESCARTES's doctrine that the actions of animals were purely automatic; but showed that modern experimental research tended to coincide with popular conviction that, though essentially automatic, the lower animals were *conscious* automata, their perceptions, however, being possibly quite distinct from ours both in intensity and in quality. The molecular changes wrought in their brains, as in ours, may leave traces and form the physical basis of memory and of association.

On the whole the meeting appears to have been an eminently instructive and successful one.

THE results of the International Sanitary Conference can hardly fail to exercise an important influence upon the future of quarantine in Europe. Whatever measures, if any, may be taken by the different nations engaged in the Conference to give diplomatic effect to these results, the conclusions of the Conference must have a profound effect both on professional and on public feeling as to the subjects to which they refer. It has been no inconsiderable gain at the

present time, when medical and general opinion has been somewhat distracted by doubts, crude and fallacious, but not less disturbing to the uninitiated, as to certain fundamental doctrines concerning the propagation of cholera, to have these doctrines reaffirmed by medical representatives of the different States of Europe whose names carry that unquestioned weight of authority which arises from a special and intimate knowledge of the subject with which they deal. The manner of affirmation on these questions was, moreover, not less significant than the affirmation itself. The questions of the transmissibility of cholera, and of the various modes in which this transmission is in this country commonly held to take place, were unanimously affirmed on propositions submitted to the Conference without the formality of a discussion. In one question only was it found necessary to add to the conclusions of the Constantinople Conference of 1866—namely, in regard to the transmissibility of cholera through the agency of drinks, especially of water. This question had not been submitted to the Conference of 1866. It was submitted to the recent Conference, and was adopted unanimously; thus proving, contrary to what is very generally believed, that the English doctrine on this subject was equally the doctrine of the responsible medico-sanitary authorities on the continent of Europe.

The question of quarantine was considered in three subdivisions, referring respectively to land quarantine, maritime quarantine, and river quarantine. Land quarantine and river quarantine occupied but little time. Land quarantine was declared to be impracticable and useless by thirteen States against four, two States abstaining from voting. River quarantine was also declared to be impracticable and useless by nineteen States, three not voting; ports in the embouchures of rivers being regarded as seaports.

The peculiar importance of the conclusions of the Conference on maritime quarantine (see THE LANCET of Aug. 22nd) will hardly be fully apprehended unless the conclusions are read with the discussions of which they are the result. In the initial discussion upon the report of the Committee on the subject, the Conference adopted a conclusion in favour of the substitution in Europe of medical inspection such as is adopted in the ports of Great Britain, Denmark, Norway, and Sweden, for quarantine, by a majority of twelve States against eight. The States voting against this conclusion were France, Turkey, Greece, Portugal, Egypt, Luxembourg, Switzerland, and Servia, the three last-named not being maritime States. Trenchant as the division between the majority and the minority in the discussion was at the outset, it was not such as to shut out hope of coming to some common ground of agreement. Such ground was found when the question was studied, not from the lofty attitude of logical deductions, but from the results of observation. Thus studied, the objectors freely admitted that there were conditions of commerce and communication which must render any attempts at the successful imposition of quarantine, in view of preventing the introduction of cholera, futile; that, in fact, the imposition of quarantine was not the mere application of a logical conclusion irrespective of circumstances, but a question involving considerations of practicability with reference to certain readily ascertained conditions. The majority had already adopted this principle in accepting the conclusion of the Committee which confirmed the recommendations of the Constantinople Conference as to quarantine in the Red Sea and in the Caspian Sea. Each Government must obviously determine for itself the practicability or not of quarantine in its own ports; and as several of the States represented at the Conference maintained through their representatives the advisability of quarantine in their respective countries, it was the duty of the Conference to discuss the principles on which such quarantine should be performed. The conclusions of the Conference, therefore, cover not only a system of medical inspection of ships in view of spreading cholera, but also a system of quarantine. These conclusions were adopted by the votes of twenty-one States, Spain only (of which country the representatives appeared very late at the Conference) abstaining.

Of these conclusions it is important to note that while the Conference *recommends* a system of medical inspection in ports when Europe has been invaded with cholera, it simply suggests the principles upon which quarantine should be conducted in those instances where a State prefers to maintain quarantine. The difference in phraseology is significant of the important change which has come over medical opinion on the question of quarantine since the Constantinople Conference. That the suggestions as to quarantine should contemplate a less rigid system than that recommended by the Constantinople Conference is a gain even in this respect; but this is of immeasurably less importance than the recognition of the conditions under which quarantine is alone practicable for the purposes for which it is designed, and of the proper substitute for quarantine in European ports. It might seem that so long as it is optional with maritime nations whether they adopted quarantine or not, and that the minority of the Conference included the States which have most sinned in quarantine (Italy alone excepted, this State voting with the majority), the Conference would really lead to no practical result. We think otherwise. The question of quarantine, as it has been left by the Conference, becomes now one of political and commercial convenience rather than of medical necessity; and when this is fully understood by the States which still accept the system, but one result can follow.

Twenty years ago, or thereabouts, Dr. GAVIN MILROY showed that the principles which have now been adopted by the majority of the recent International Sanitary Conference were those best applicable to the needs of the maritime ports of Europe in presence of cholera or other spreading pestilence. Dr. MILROY has, happily, lived to see the principles which he so long, so earnestly, and so learnedly maintained at length accepted by the medical representatives of the maritime States of Europe, and in a fair way of becoming the general rule of the Continent.

It is difficult to estimate what amount of practicability underlies the project of an International Epidemiological Commission. There is a certain plausibility about it, but whether the project will commend itself to the different States engaged in the Conference remains to be seen. We must confess to want of faith in the value of co-operative international scientific work.

IT would be well for mankind if we all practised what we preach—if we ourselves took the advice we give to others. Yet how few follow this golden rule. The clergyman does not always act up to the advice he gives in the pulpit. The lawyer, so ready to advise his clients to set their worldly matters to rights, is of all, it is said, the most liable to die intestate. And doctors offer no exception to this too common fault. They know the laws of hygiene and of physiology; they are acquainted with the symptoms and nature of disease; and yet in their own cases they too often despise the former and shut their eyes to the latter. It is more especially so when success crowns their efforts, when patients flock to them, and summonses to the sick-bed are numerous and urgent. It is then that they seem to forget all about the laws of physiology, to ignore serious symptoms of disease in their own persons, and to act as if they had a charmed life—as if they were immortal—as if disease and morbid conditions, constantly fatal in their patients, would pass away from them like a summer cloud. It is not, generally speaking, the young patientless doctors who make this fatal mistake: as a rule, they do not neglect their health; they take exercise and relaxation; they seldom work too hard; and they certainly seldom die from preventable causes. It is the middle-aged and elderly practitioners who are the backsliders, who kill themselves or let themselves die from unnecessary hard work, or from shutting their eyes voluntarily to hard pathological facts applying to themselves. Of them, also, it cannot generally be said, as it might of younger and less prosperous men, that it is the *res angusta domi* that pushes them on. In most instances, when ill-health or exhaustion comes, they have laid by already quite sufficient to supply their own wants in moderation, or those of their families; or, at least, they have attained to an income which would well bear dividing by two or even three.

Every year facts illustrating the truth of these remarks come before us. Prosperous, well-to-do men are suddenly struck down, apparently well, in the middle of their work. But when the incidents of their final illness and death become known, it is found that, although they have to all appearance died suddenly, they had been suffering from chronic disease or from exhaustion for years. Yet they have gone on, have kept their position in the race, all to gain merely a little more honour, a little more money, and to die ten, fifteen, twenty years sooner than they ought or need to have died. Many names rise to our mind; but we will merely take four, all well-known physicians, whose names, lives, and deaths are public property—Dr. TODD, Dr. BRINTON, Dr. FORBES WINSLOW, and Dr. FREDERIC BIRD.

Dr. TODD died in the night of intestinal hæmorrhage, whilst carrying on an enormous and wearing practice, and after his usual hard day's work. A post-mortem examination showed that he was suffering from cirrhosis of the liver, which had occasioned the hæmorrhage. Now, no man can die of such a disease without having been and felt very ill for months; and so accomplished a physician would never have been entirely mistaken in his own case, and fancied himself quite well when he was ill enough to die. Still he never stopped, but went on to the last. Dr. BRINTON died suddenly of uræmia, also in the midst of his work, and then it was found that he had been suffering from chronic albuminuria, in an aggravated form, for several years, and knew it! Still he never stopped. Dr. FORBES WINSLOW had a very severe illness four or five years ago—stone in the bladder and pleurisy—which kept him in his bedroom for months, and left him an invalid. Still he repudiated the warning and went on, winter and summer, with his large practice and heavy professional duties, to die four years later of albuminuria, foreshadowed by the former illness. Lastly, Dr. FREDERIC BIRD, whose death is still recent, passed away in a few days, in June, of bronchitis. Such a form of death in Midsummer, in an apparently sound man, indicates complete organic exhaustion; it indicates that the vital powers had been so worn by constant and incessant labour that he could not survive one of those accidental attacks of every-day illness which ought only to kill weak, sickly children and aged, worn-out men and women.

Another phase of the same neglect of "warnings" on the part of our professional brethren is seen in our obituary nearly every week. Therein we read of the final departure of Mr. ——, a less-known brother, retired from practice—often it is added, with a comfortable independence—six months, a year, eighteen months previously. This means that he clung to work and to money-making until positively obliged to withdraw, from sheer incapacity to accomplish his duties, merely to die a little later from the disease which drove him out of the ranks.

In the army and navy, men are obliged to retire while still healthy and vigorous, long before they are sixty. With a modest independence, freed from the worries and anxieties of life, they seem to live on all but indefinitely, mostly dying between seventy and eighty, and often at a more advanced age.

Would that our prosperous professional brethren would employ in their own case the knowledge they so freely give to others. Would that they could be satisfied to retire early enough to save or prolong life; or that they would be satisfied with one-half, one-third, or even a quarter of their usual income. If they were so satisfied, they might pass one-third or one-half of the year away from the scene of their professional labours: the winter on the Nile, or anywhere on the Mediterranean; and the summer in the country in England. Absence, either occasional or regular, does not destroy the professional income of men who have gained the esteem and the confidence of the public by twenty or thirty years' labour; it merely *diminishes* it.

AT a special meeting of the State Board of Health held in Detroit, Michigan, U.S., Dr. HENRY B. BAKER, Superintendent of Vital Statistics in the Secretary of State's Office, and Dr. BLISS, Chairman of the Committee on Epidemic, Endemic, and Contagious Diseases, were recently appointed to visit Petersburg, in Munroe County, to inquire into and to collect evidence concerning an outbreak of an epidemic of cerebro-spinal meningitis reported to have broken out in that place. Dr. BLISS was unable, owing to ill-health, to accompany his colleague, and Dr. BAKER, therefore, made the inspection. The result of his inquiries led to the dis-

covery of as many as 77 cases; of which 25, or 32·46 per cent., proved fatal. The experience thus derived of this rare and terrible disease is so remarkable we feel it a duty to place before our readers the more important facts.

The patients generally complained, before the outbreak of acute symptoms, of being tired and lame, and in this state they often continued twenty-four hours; they had also, at the same time, pain in the back of the head and down the spine. The acute attack usually began with a chill and a cold stage; but a few persons were taken as suddenly as if they had been knocked down. Vomiting was a prominent symptom before and after the cold stage. About one-half of the patients were rational throughout the attack, but some had violent delirium from the commencement. There was great tenderness of the body, especially over the deep nerves given off from the spinal column. In many cases the head was thrown back, sometimes to one side; and in some cases the eyes were affected with squint, divergent and convergent. The pupils of the eyes were usually dilated, and the eyelids were powerless, so that the sufferers could not wink the lids. Copper-coloured spots appeared upon the body in many instances.

Thirty-three of the cases of this disease occurred at a village called Dundee, thirty-seven at another village called Petersburg, two at a village known as Deerfield, and five at or near another village named Blissfield. The four villages are all located on the banks of the river Raisen. The water of this river is turbid; at each point there is a milldam; and there is an odour arising from the water as it pours over the dams. The prevailing diseases of the district are intermittent and remittent fevers.

The epidemic began on the 3rd of March at Petersburg, and visited Dundee on the 7th of the same month. Eighteen of the cases occurred in March, twenty-seven in April, twenty-eight in May, and five in June. Out of the first half of the cases, twenty-nine were males; while of the last half, eleven only were males. The deaths took place in all the fatal cases before the seventh day; many on the fourth day, more on the fifth and sixth days, and most on the seventh day of the disease.

Dr. BAKER entered into a careful investigation of the cause of the epidemic. An analysis of the water of the district proved to him the presence in it of much organic matter; and he points out that the village of Petersburg is the site of an old Indian burying-ground, and that the present cemetery is within the limits of the village. But after a careful study of the local conditions actually found in connexion with the epidemic—as those of soil, sewerage, sources of malaria, and general and private sanitary conditions,—he concludes that there was no evidence of any influence capable of acting on the human system through the atmosphere so different in the infected localities from others in which the disease did not exist as to warrant the belief that such influence was the cause of the epidemic. He reports, therefore, against the malarial view of the origin of the malady, and offers a series of facts tending to show that some poison in the food of the persons affected was the cause. His evidence leads him to the view taught by Dr. B. W. RICHARDSON of the origin of cerebro-spinal meningitis—viz., that it is induced by the eating of a fungus of wheat in wheaten flour, the effects according to this theory being similar to those produced by the ergot of rye. The ergot of wheat, Dr. BAKER contends, is more active than the ergot of rye, and retains its properties longer. Its worst effects are not produced by a single large dose, but by continued small doses. The symptoms excited by this agent are, he maintains, the same as those that were observed in the patients who suffered in the epidemic he had to report upon; and he traced the fact that the flour used in the locality of the epidemic was from wheat grown near the spot, which this year contained much diseased grain or smut. The distribution of no other article of food except the flour accounts, he believes, for the origin and spread of the malady.

We have given in detail the leading features of Dr. BAKER'S interesting and important report with the hope of attracting the attention of other sanitary officers who may, in the future, have to institute inquiries respecting one of the most terribly severe though happily most rare diseases of mankind. The localisation of the affection at and near Petersburg, the apparent freedom from contagion, and the brief period of the epidemic, are, without doubt, distinctive evidences of a purely local and temporary inducing cause. If, then, by further evidence, Dr. RICHARDSON'S theory of the origin of this malady, from a diseased grain, be proved to be correct, we may feel assured that cerebro-spinal meningitis will be arrested at once, whenever and wherever it appears in civilised communities; that another plague will pass under the control of science, and another success reward the efforts of the professors of legitimate and scientific medicine.

THE circular letter of the Local Government Board on the subject of water-supply, referred to in THE LANCET of the 8th inst., naturally leads us to look around and endeavour to find out how much or how little sanitary authorities have done as regards providing their respective districts with a plentiful supply of good water. The subject is probably more extensive than any other that could be broached in connexion with preventive medicine, and it takes some time to apprehend fully the immense volume of sanitary or insanitary events depending on water plentiful and good. It appears to us at the present time that the dearth of water is, as it has always been, felt far more in the rural than the urban districts of the kingdom, inasmuch as the latter are for the most part able to obtain water—not perhaps as yet in a constant current, but fairly plentiful and tolerably good. It appears, therefore, that the best way of meeting the urgent wants of the rural population will be to direct the attention of sanitary authorities to the simplest mode of storing water; and this is the more important because it has come to be generally acknowledged that waste is the immediate evil requiring a remedy. In this matter it may be mentioned incidentally that the surveyor of Watford has calculated that in that town 70 gallons per head are consumed daily, exclusive of 14,000 gallons allowed for trade purposes.

We have received some information on storage from several correspondents; and have to mention, among others, a set of questions lately issued to the various officials in the Belper rural district by Mr. EDWARD GAYLOR, medical officer

of health. These questions ask for information as to quality, storage, &c.; the replies to which, if intelligently given, cannot fail to form a nucleus of useful information. As many places in England are still partially, if not wholly, dependent upon rain-water, the storage question is a matter of great importance. It is, of course, not very difficult to find out the minimum quantity required by the inhabitants of any given district; and the area of storage can then be as easily calculated as on board ships. Constantinople, Gibraltar, and other places are partially, and Venice is wholly, supplied with rain-water; and PARKES, in reminding us of the fact, says that no house in Gibraltar is now allowed to be built without a tank. As to the latter, we are glad again to draw attention to CREASE'S filter tanks, a sketch of which appeared in THE LANCET, vol. ii. 1872, p. 821. These tanks are now used in the largest ships of the Royal Navy, and appear to us equally suitable for the storage of water on shore. It is indeed very desirable, and in fact almost necessary, that every village and hamlet should have its own tank or reservoir, the proper construction and care of which would devolve upon the rural sanitary authority. If this plan were generally adopted, enough roof-surface exists to afford an ample supply, even with the irregular rainfall of this country; for a correspondent of the *Builder* has calculated that on the roof of every building that covers an area of 27 ft. by 30 ft. there falls, in the course of an exceptionally dry year, enough water for the consumption of one adult. The construction of water tanks should be as simple as possible. Stone, cement, brick, and slate have all been used, the chief necessary conditions being depth rather than length or breadth, a covering, and periodical cleansing. They should not be exposed to heat or light, and, if large, a second smaller tank should be made, into which the water may run through a charcoal filter.

In suggesting this very simple way of storing water for our rural population we are but inculcating a principle that has long been adopted in other countries, where the rainfall is not so intermittent as in our own, but occurs at much longer intervals. It is possible that in many scattered villages a large number of small tanks would be necessary. But, anyhow, the reservoir system is well worthy of consideration at a time when the very article we specially require for the maintenance of health is, and is likely to be, difficult to obtain in many parts of this country during several months of the year.

Medical Annotations.

"Ne quid nimis."

THE PORT OF LONDON.

THE second half-yearly report of the Medical Officer of Health for the Port of London, Mr. Harry Leach, just made public, is hardly less interesting than his first report. It shows especially how all the complicated workings of the port sanitary authority's district are being steadily brought under supervision, and brings more and more clearly into prominence the nature of the task involved in the sanitary charge of the river and docks within the limits of the port sanitary authority's jurisdiction. Mr. Harry Leach has to deal with a district not less than 88 miles in length, and of which the topography is complicated by numerous creeks, and by eight sets of docks. Within this district there are, on an average, at all times stationary 1000 ships, having on board a population of 9000 souls, while going and coming within the year there are no less than 25,000 vessels, exclusive of 6400 sailing and dumb barges belonging to the port. The ordinary work of the sanitary officials of the port includes inspection of inhabited vessels with reference to cleanliness of crews' quarters, ventilation, closet accommodation, state of bilges, drinking-water supply, state of water in tanks or casks, and removal of cases of contagious diseases; removal, if required, of vessels to isolated moorings; fumigation of vessels; disinfection of clothing; disinfection of effects of sailors or others who have died at sea; inspection of foul cargoes; examination and (under an order from a justice of the peace) destruction of any article about to be sold, or exposed for sale, unfit for the food of man; inspection of dock-closets (119 in number); inspection of tank-boats used for the supply of water to vessels in the port; official correspondence with agents, owners, ship captains, and public departments concerned in the business of the port. In addition to these ordinary duties, special duties have to be performed where there is danger of importation of cholera into the port. To do this enormous amount of work, in a district so vast, the staff of the port sanitary authority at the time of the writing of the report consisted of one medical officer of health, an assistant medical officer stationed at Gravesend, and one inspector. A second inspector has now been added, but other inspectors will obviously be required before the sanitary supervision of the port can be held to be fairly provided for.

The ordinary work done by the medical officer of health and his one inspector during the half-year to which the report refers, included the inspection of 4564 vessels, of which 758 were found foul, and were ordered to be cleansed. The *special* work included six inspections on information given by the officers of H.M. Customs, none of these inspections happily relating to cholera. Mr. Leach has some important observations on the future sanitary organisation of the port, a notice of which we reserve for another occasion.

SMALL-POX AT NEWMARKET.

ON the eve of going to press we are glad to be enabled authoritatively to state that every case of small-pox at Newmarket has been removed to the Heath Hospital, including those lately located in the workhouse, and the child of an obstinate individual referred to in our special report as assisting to spread the disease in a court called "The Rookery." This satisfactory clearing out has been effected by the persevering efforts of Dr. Gray and Dr. C. Gray, under the superintendence of Dr. Armistead, medical officer of health. Six cases have occurred since the date of our report, all of which were removed immediately to the hospital, and, as we write, no fresh case has occurred for eight days. At a meeting of the magistrates held at Newmarket on Tuesday last objections were raised as to the renewal of licences in the cases of the "Rising Sun" and the "Black Horse," it being alleged that the landlords of these houses had by carelessness assisted the spread of the disease (one of these cases was explained in our special report on the 8th inst.) The consideration was adjourned for three weeks in order that special inquiries might be made. We may record, parenthetically, that a Leeds publican was fined £5 on Wednesday last for not closing his house against customers during the time that some inmates had small-pox. All cases that have occurred in the surrounding villages are either well or have been taken to the hospital, so that Newmarket and its neighbourhood have, as we hope, reached the end

of the epidemic. The October race-meeting commences actually in the last week in September, but, if no fresh cases occur, the hospital will probably be empty by that time, and it must be remembered that this hospital is a mile from the course used during the race week at this particular meeting. Under any circumstances, there is no reason to suppose that the Committee of the Jockey Club will disturb the hospital arrangements, and, on sanitary grounds, it would obviously be very unwise to do so, whether at the time of the meeting any sick remain in the establishment or not. For all acquainted with the geography of the course know that this old "July" stand, as it is called, now converted into a hospital, need not be approached by any persons concerned in the October races; and, having examined the ground and its approaches, we have no hesitation in saying that very few towns possess, as it were ready-made, the means of isolating cases of infectious disease so completely and so successfully, for both the letter and spirit of quarantine regulations might be carried out here in all their integrity, with special advantages in the way of abundant supplies of pure air and water.

TYPHOID FEVER AND COLD BATHS.

IN a recent pamphlet on this subject Dr. Bondet gives an account of some results of the employment of the so-called "method of Brand" during the epidemic at Lyons in the months of April and May of the present year.

Our readers will remember that the disease broke out suddenly first at the Lyceum, and afterwards affected the lower quarters of the town, a large number of persons being attacked simultaneously. Dr. Bondet accounts for the epidemic by the preceding atmospheric and hygienic conditions, noting especially the occurrence of period of high temperature and prolonged drought, followed by a day or two of very low atmospheric pressure, inefficient flushing of the sewers, and the accumulation of animal and vegetable refuse in and around the public markets, close to which the Lyceum is situated.

Passing next to the type and symptoms of the disease, so important in relation to any uniform system of treatment, he gives a careful outline of the mode of onset and course observed in the majority of cases. The onset was often sudden, at times more gradual, but with severe headache and giddiness, epistaxis also being a constant phenomenon. The temperature, usually high from the outset, was subject to irregular remissions during the day, but with an evening exacerbation; and inequalities of surface temperature, with irregular or localised perspirations, were common. The eruption on the abdomen was usually well-marked and abundant from the seventh day, and a marked *tâche meningitique* was almost constant; whilst pressure in the hepatic region caused pain, but not in the splenic. Constipation was the rule for the first four or five days, and was succeeded by diarrhœa, at times colliquative and fetid. The temperature usually fell on from the twelfth to the fifteenth day.

In the author's cases treated at the Hôtel Dieu all the men were given seven grains and a half of sulphate of quinine every day, a simple or camomile injection being also administered daily, and the diet consisting of broth and wine. For the women was reserved the new and experimental method, for what reason we are not told. This "method" was followed by a rigorous attention to the details recommended by its author. Its principle, we may remind our readers, consists essentially in the administration of a bath of 68° F., continued for fifteen minutes, every three hours, so long as the temperature of the patient is above normal, cold affusions being substituted after the first day or two. Of ten females thus treated, one had a bedsore over the sacrum, and died of pneumonia contracted on the nineteenth day, after eleven days of the treatment, and one other had erysipelas of the face. Of other patients treated in the Hôtel Dieu by the same method, eleven out of seventy-five died, and in private practice five out of twenty, making in all a mortality of 16 per cent. Of these cases, one died of syncope on removal from the bath, five from pneumonia, one of facial erysipelas, two of perforation, two of enterorrhagia, two of diphtheritic angina, three of adynamia, and one from the blood condition. In addition to the fatal accidents, numerous complications were observed, of which bronchitis, broncho-pneumonia, and various forms of angina were the most frequent. The post-mortems proved that the intestinal lesion proceeded unchecked by the treatment.

In contrast with the above mortality, the author had fifty-two other cases under his care, treated without baths, of which only one was fatal. He concludes that the method is absolutely dangerous if used indiscriminately in all cases, and that it is only applicable in the early stage of severe attacks or where the fever is of adynamic type.

Whilst agreeing with him in these conclusions, we must point out that his results do not carry with them a condemnation of the use of cold baths after a more rational system, such as that of Béhier, which is being extensively tried in Paris, in which the baths are given only when the temperature reaches 104°. Further details of the results of the latter method are to be desired.

DRUNK OR SOBER?

THE psychology of drunkenness might afford an interesting subject for more than one article. The *Broad Arrow* of last week discusses, from a military standpoint, the difficulty of deciding whether a soldier has been drunk or sober, where the evidence is, as is so often the case, of a very contradictory kind; and the matter is one capable of wider application, for the difficulty is not by any means restricted to soldiers. As everybody knows, there are degrees of drunkenness, and there can be no mistake about a man who is "dead drunk," except the difficulty in some cases of distinguishing between the separate or combined effects of alcohol and some other poison, disease, or injury. Again, when a man is noisy, incoherent, and staggers in his gait, with the "smell of liquor about him," there does not remain much room for doubt. But it is the minor degrees of drunkenness, and the power which some drunken men have to recover rapidly, or, by a powerful effort of self-control, to act for a short time as if they were sober, that prove so embarrassing. A man is seen by one set of witnesses who entertain, and correctly entertain, no doubt as to his being intoxicated; but he understands what he is about sufficiently to be alive to the necessity of concealing his state, and, if suddenly confronted with someone in authority, it is remarkable how successful his efforts are in this direction, and how well he sustains his part for a short time. Steady soakers, as they are termed, will go through some duty or other automatically as it were, and yet have no recollection afterwards of what they had done. Moreover, the rapidity with which some men recover from intoxication is sometimes very singular. We know of the case of an individual who was charged with drunkenness on the evidence of several most intelligent witnesses, and on grounds that seemed indubitable. Within an hour or two of that time he had undertaken some duty involving his having an interview with other persons, and giving directions in writing which were quite clearly and correctly expressed. The last-named persons came forward, to the great surprise of the accused, with their documentary evidence in support of their own strongly-expressed convictions that he was perfectly sober. The most curious psycho-

logical fact in the case was that the accused had no recollection of anything beyond the fact that on the evening in question he had been drinking hard, and he did not even remember that he had seen any of these witnesses or written anything, although he was ready to swear, of course, to his own handwriting in the document. Another gentleman once assured us that he had more than once felt, after drinking rather freely at a dinner, the symptoms of commencing intoxication, and that, on testing himself, he could not put together two consecutive sentences correctly; but, he added, "I discovered that by a plentiful draught of cold water I could dilute the alcohol in my blood to such an extent as, in a short time afterwards, to make a speech, and conduct myself so that no one had the least suspicion of my having been other than perfectly sober." *In vino veritas* expresses the common belief that alcohol not only unlocks a man's secrets, but causes him to disclose his true character. Such, however, is not by any means always the case. The different effects of different forms of alcohol on the same individual, and their very varied effects on different individuals, are matters of common observation, of which there is no need to speak.

THE OMISSIONS OF MR. PLIMSOLL.

THE question of unseaworthy ships is once and again revived by the reply of the Plimsoll Committee to the final report of the Royal Commission. Mr. Plimsoll still continues to urge the periodical survey of all vessels registered in the United Kingdom, and to advocate the establishment of a load line for each and every vessel, and appears to believe that the practice of these two principles, enunciated and superintended by Government officials, would cure most of the risks and ills to which nautical flesh is heir. The Commission has, however, reported unfavourably as to the adoption of either of these principles, and so, at all events until next session, the matter rests, when Mr. Plimsoll proposes to abide by "the decisive logic of a vote."

It has all along appeared to us somewhat strange that, in waging war with shipowners on behalf of seamen, Mr. Plimsoll did not make use of sanitary as well as architectural weapons. We have often pointed out during the past three or four years that no amount of excellence or perfection in the build or outfit of a ship will render her safe and independent of her crew, and that if a certain percentage of that crew are incompetent from disease and sickness, she is as likely to go to the bottom as the old tubs that Mr. Plimsoll so energetically condemns. We have also called attention to the sanitary objections to lower forecastles, and a most unhappy illustration of this question was afforded at an inquest at Barking a fortnight ago, when three men were found dead in their bunks, having been suffocated, in abominably close quarters on a level with the cargo, by the fumes of nitrous acid gas. We have also pointed out the necessity, and have shown the practicability of legalising, with certain limitations, scales of diet for seamen, so that special antiscorbutics, as lime-juice, may be dispensed with, and the men, if they start in good condition, be kept in as fair order as the spars and gear that they handle. But Mr. Plimsoll seems to care for none of these things, or fails to appreciate their importance. We venture to think that he would have claimed the sympathy not only of the masses, but of the underwriters and of many of the shipowners as well, had he devised and brought into public notice some practical hints for improving the quality of seamen, founded on the removal of the defects above indicated, which defects we venture to maintain have deterred men from serving afloat more than the reputed or actual unseaworthiness of any particular ship or ships. It was mentioned incidentally before the Commission that a compulsory medical inspection of seamen would be impossible at the present time, because the supply would, in consequence, at once fall short of the demand. But we insist that this would cease to be the case if seamen were provided with better accommodation in our coasting vessels, and better diet in our ocean-going ships. These reforms, the application of the Contagious Diseases Acts to all mercantile marine as well as Royal Navy ports, and a return to the system of compulsory apprenticeship would increase the supply, and then the chaff might be sifted from the wheat without any fear of failure in the supply of the latter.

We commend these remarks to the attention of Mr. Plimsoll, believing that they have a philanthropic as well as a commercial and sanitary aspect.

THE LOCAL GOVERNMENT BOARD AND UNION MEDICAL OFFICERS.

THE letter from Dr. Fowler, published in our issue of the 22nd inst., exhibits the Local Government Board as actuated by a spirit of partiality and of unbusinesslike conduct in dealing with officers deprived of their appointments through the orders of the Board. It would appear that when the clerk to the guardians was deprived of office by the dissolution of the East London Union, he was permitted to claim compensation not alone for his salary, but for all the contingent advantages appertaining to his office; but when Dr. Fowler, medical officer in the same Union, was similarly deprived of his appointment, the department refused to take into consideration the contingent advantages (such as vaccination-fees, extra services during the cholera, &c.), but estimated his compensation from his stipend only. Recently it would appear that superannuation has been granted to one of the medical officers of the City of London Union, and in estimating his claim, the computation was made not on the basis of his stipend only, but on the contingent advantages as well. This the department allowed. Hearing of this, Dr. Fowler wrote and requested the department to reconsider the decision arrived at in his case. This Mr. Fleming not only declined to do, but intimated in his reply that if the attention of the department had been *specially* directed to the point he had raised, they would have disallowed that part of the claim of the medical officer of the City of London Union. It is evident from this that the department, in assessing the claims of clerks of boards of guardians, is moved by the consideration that they have plenty of friends in the House who would take care they were justly dealt with, but the parish surgeons, not having friends there, may be trampled on with impunity.

We would advise Dr. Fowler to get the subject raised in Parliament next session, by putting into the hands of some honourable member a distinct question, which Dr. Fowler can easily frame.

THE "PECULIAR PEOPLE."

THE *Law Journal*, with a great display of learning of rival sects in medicine, and of "the three classes" into which all medical remedies may be divided—the "bromatological, substitutive or rather stœchiological, and toxical or poisonous"—expresses unfeigned delight at the recent decision of Baron Pigott, that a father who allows his child to suffer from disease and die without seeking medical aid for it, is not guilty of criminal neglect. Our contemporary's delight at this decision seems based rather on the slight esteem of the medical art which it implies than on its assertion of the right of an ignorant parent to do what he likes with his own child as far as medicine is concerned. One of his points is, that as medicine is so divided, one set of doctrinaires would like to punish a parent who failed to consult what

they considered an orthodox practitioner. In the name of sensible practitioners of medicine we repudiate any such narrowness. We cannot think without pain of a child suffering the agonies of pericarditis for days, and finally dying thereof, without having the benefit of the advice of a medical practitioner recognised by the law of the country. It seems strange to us that the law-courts of a country which takes precautions to secure a properly educated class of practitioners, permitting them much range of private opinion, should sanction the cruelty of allowing a child to die without the benefits of medicine. It requires a more discriminating faculty than we possess to distinguish between the criminality of a father who neglects to bring a doctor to his child with a broken leg and that of one who neglects to bring a doctor to his child with an inflamed pericardium. Both events are accidents full of distress and suffering, and both need to be most tenderly treated. Of the two, the accident to the pericardium is the more serious. It is a doctrine that we must leave to lawyers, that a child with such suffering may be left without medical attention. Such a doctrine is repugnant to humanity and common sense, more worthy of barbarous tribes than of a Christian and civilised nation. If this really be the state of English law, which—Baron Pigott notwithstanding—we still doubt, the sooner it is altered the better. The medical profession has little interest in the law one way or the other, excepting as a matter of humanity, and if the law has to be altered, it will have to be at the instigation of the public, and not of the profession. Meanwhile, our legal contemporary may do well to extricate himself from the mazes of medical and legal theory, and contemplate for five minutes the duties of a civilised country to a child in the agonies of pericarditis, who has a father with such outrageous notions as those of the Peculiar People.

THE SANITARY ASPECTS OF EMIGRATION.

AN energetic correspondent called "Bohemian" has lately embellished the columns of *The Times* with several aspects of emigration, the point of which appears to be, that the practice is, for the most part, a delusion and a snare. As, however, emigration is a fact, and some thousands of our fellow-creatures leave our shores every week for the purpose of trying their fortunes elsewhere, proper provision has to be made for the safe transit across the seas, and hence we return to the sanitary aspects of emigration.

During the past two years the Board of Trade, who now represent the Emigration Office, have improved administrative matters very considerably. They have increased the staff and the power of the medical inspectors at the outports, and are now, as we are informed, employing their medical advisers in revising the official scales of medicines and medical stores, which had become absurdly antiquated and complicated. So far, so good. But, as it appears to us, some laxity exists as to the medical examination of emigrants before or at the time of embarkation. It is notorious that a large number of children have been sent on shore at Gravesend suffering from measles, whooping-cough, or some other contagious or infectious disease, from large emigrant ships bound for New Zealand, and it is equally notorious that several New Zealand ships have arrived in that colony having had during the outward passage a serious amount of mortality on account of these diseases. We recommend these facts to the serious attention of the Board of Trade. Their medical staff, both in London and at the outports, is numerically weak. It is eminently necessary that a careful examination of all emigrants about to embark for a long voyage should be made on shore, for the superficial (and we believe the only) inspection that takes place an hour or two previous to the final departure of the vessel is little better than a farce, and for all purposes of practical diagnosis is worth nothing. The fault rests, not with the officers, but with the system. All New Zealand emigrants are now lodged at a large depôt at Blackwall some days previous to embarkation, and a daily inspection of the inhabitants of this establishment should be made by the Board of Trade medical officers. The same principle should be adopted at the outport emigrant depôts, and, as we remarked some two years ago, the medical officers of the Board should have extended duties, and be saddled with a far greater amount of responsibility.

A CHARGE OF MALAPRAXIS.

AN action brought last week at Liverpool against a member of an old-established firm of surgeons practising in Chorley illustrates one of the dangers of surgical practice. The case was one of compound fracture of both bones of the forearm in a child aged ten, which was seen immediately after the accident—a fall on the hand—by the surgeon in question, who found the end of the bone protruding, and reduced it, dressing the wound with wet lint, which was kept in place by two strips of plaster. Pasteboard splints and a bandage were applied over all, and the patient was driven home in the doctor's gig. On the evening of the next day some swelling had come on, and the surgeon removed the bandage and readjusted it, but did not interfere with the plaster. On the following day, the swelling having increased, his brother and partner was called in, who found the hand congested. He removed the plaster and lint, and put on a longer splint. On the following day symptoms of gangrene showed themselves, and in the afternoon the mother took the child to a "bone-setter" at Bolton, whose knowledge of surgery may be gauged by the fact that he swore the fracture had been a "simple" one, with nothing but an abrasion. He, after three days, referred the case to a surgeon at Bolton, by whom the arm was amputated, and the child eventually recovered.

The case turned mainly on the piece of plaster put to hold on the lint. To this all the mischief was attributed, and the medical evidence brought forward by the plaintiff was based upon the hypothesis that the plaster completely encircled the limb. The defendant and his witnesses, on the other hand, swore that half an inch intervened between the ends of the plaster, and his scientific witnesses corroborate the view that this interval was sufficient. We do not venture an opinion upon the subject, especially as opportunity has been given for an application to set aside the verdict which was given for the plaintiff for £150. The danger of completely encircling a limb with either plaster or bandage cannot be exaggerated, and we are always reminded, when hearing of such cases, of the formidable illustration introduced into "Miller's Surgery" with the grimly ironic description—"Gangrene from strangulation of an injured limb by absurd bandaging. John Bell. Introduced on a large scale *in terrorem*." Most surgical authors refer to the subject, and deprecate any bandaging of a fractured limb, and it is therefore a matter of regret to us to find that even in the last edition of Druitt's well-known "Surgeon's Vade-mecum" the custom is upheld with apparent approval, as follows:—"It is usual to bandage the whole of the fractured limb from its extremity. This is done for the double purpose of preventing swelling and of confining the muscles that they may not contract and disturb the fracture. But it is unnecessary." We would add—and to be avoided as dangerous.

Given a case of congested limb with threatened gangrene, much may be done to relieve the part, and obviate mischief by careful friction with the hand in the direction of the

venous circulation, and by raising the part. Nothing of this kind seems to have been attempted by the "bone-setter," who allowed the limb to be for three days without any proper support before he referred the case to a qualified surgeon.

HEALTH OF BRIGHTON.

THE medical officer of health for Brighton, Dr. Taaffe, has issued his report for the quarter ending June 30th. During the three months 703 births and 425 deaths were registered in the borough. Of the latter, 48 were those of non-residents, and excluding which the mortality of the town is reduced to the low annual rate of 16·8 deaths per 1000. We quite agree with Dr. Taaffe, that as a great number of persons go to Brighton very ill, and in much greater proportion than the residents who leave the town in the same condition to seek restoration to health elsewhere, it is only fair that a proportionate reduction in the death-rate should be made for non-residents who die in the town. The most fatal of the zymotic diseases during the quarter was whooping-cough, which caused 18 deaths. Measles was accredited with 14 deaths. We observe that no death occurred either from small-pox or scarlatina. The immunity of Brighton from the latter disease at a time when it is so widely prevalent throughout the whole country is singular. The deaths referred to phthisis and disease of the respiratory organs amounted to 117, or 27·5 of the total mortality. There were 21 deaths from cancer, 2 from alcoholism, 32 from heart disease, and 3 (infantile) from congenital syphilis. A house-to-house visitation was made in the poorer neighbourhoods of the town by the inspectors of nuisances, who do not appear to have found, as a rule, much to condemn. We cannot refrain from congratulating Dr. Taaffe and the sanitary authorities on the manifest salubrity of Brighton.

SMALL-POX AT BIRMINGHAM.

THE Birmingham papers publish a report by Dr. Buchanan, one of the assistant medical officers of the Local Government Board, on the prevalence of small-pox and other infectious diseases in Birmingham and Aston, and on hospital accommodation there. This report, while dealing with the necessity of the moment as to hospital accommodation, also discusses the requirements of Birmingham with respect to permanent hospital accommodation for infectious diseases. Postponing for the present the question raised by Dr. Buchanan of the permanent hospital accommodation which should be provided in towns in view of limiting the spread of infectious diseases, we shall now restrict our observations to such portions of his report as refer to the influence of hospital accommodation in checking outbreaks of small-pox. Dr. Buchanan furnishes data on this head, which have not been accessible before, and which cannot be too widely known. He shows how, with respect to persistent outbreaks of small-pox, that the short duration of the late outbreaks in London and Coventry, as compared with the outbreak still in progress in Birmingham, was in all probability due to the larger amount of hospital accommodation provided in the two former places. Small-pox was seriously epidemic in London for seven consecutive quarters in 1870-72, but by the end of 1872 the disease had diminished to very small proportions. It was still more seriously epidemic in Coventry for six quarters of 1871-72, and then in the middle of 1872 was almost suddenly and totally extinguished. But in Birmingham it was mildly epidemic for five consecutive quarters of 1871-72; was still prevalent, though less so, throughout 1873; and now, in 1874, when London and Coventry are free from the disease, Birmingham is suffering under a sharper visitation of it than at any former period since it first appeared in the borough. In Birmingham, indeed, Dr. Buchanan believes that a large remainder of the disease has still to come, unless the sanitary authority of the borough bestirs itself in measures of repression in a different fashion from what it has done up to the present time. Now, making every allowance for the means taken as to vaccination and revaccination in limiting the spread of small-pox, Dr. Buchanan believes that these alone will not account for the decline of the outbreaks in London and Coventry at particular periods. He thinks that the hospital accommodation provided contributed in a most marked and efficient manner to this end. In both places hospital accommodation for small-pox was provided at the rate of seven or eight beds per 10,000 of the population, and all classes of the population made use of this accommodation. When the hospital accommodation had reached this amount, and was brought into free use, the outbreaks rapidly declined and died out. In Birmingham, during the whole three years (1871-73) over which the present outbreak has been dragging, the hospital accommodation never amounted to three beds per 10,000, and these beds, moreover (differing in this respect from the course taken in London and Coventry), although open in 1872 to non-pauper cases, were provided for paupers, and not appreciably used by any but paupers. Birmingham has yet to learn the advantage of other than pauper hospital accommodation in these contingencies.

PROFESSOR GRANT, F.R.S.

WE regret to have to announce the death, on Sunday last, from an attack of diarrhœa, of Dr. R. E. Grant, F.R.S., Professor of Comparative Anatomy and Zoology in University College, London. A graduate of the University of Edinburgh in 1814, he was appointed, at the foundation of University College in 1828, to the chair which he held up to the time of his death. His reputation rested chiefly upon scientific work done in his early life. His lectures were clear and full of information, and even eloquent, delivered with all the earnestness of an enthusiastic lover of his science. He was, as Prof. Tyndall remarked the other day at Belfast, one of those who earliest embraced the ideas of development of which Darwin became the subsequent exponent, and was far ahead of his earlier contemporaries, almost more than abreast of advanced thinkers of the present day in the wider theories of science. Possessed of an equable temperament and good health, with a nature open to all sources of enjoyment from art, music, and literature, he passed, with much quiet happiness, through a solitary life which was not without its privations; and even the consciousness of impending death did not lessen his keen interest in the subjects to which he was devoted. He was the only surviving professor at University College who was appointed at its foundation to the chair which he still held.

NEW RESEARCHES ON DIABETES.

WE learn that Dr. Pavy has obtained some experimental results which are likely to throw a new light on the subject of diabetes. He has found that the injection of defibrinated arterial blood into the portal system occasions a saccharine state of the urine. In one experiment, the urine after the operation contained fifteen grains of sugar to the fluid ounce, and in others the quantity has amounted to nearly the same. In the counterpart experiment of injecting defibrinated venous blood into the portal system, the urine showed no signs of the presence of sugar. It thus appears that oxygenated blood passing to the liver causes an escape of sugar from the organ, and thence an accumulation in the system and discharge with the urine. It also appears that through the medium of the respiration of oxygen he

has succeeded in inducing a sufficiently oxygenated state of the blood to similarly give rise to the production of saccharine urine. He has further found that through the agency of the inhalation of puff-ball smoke an immediate and strongly diabetic state may be induced, and that the effect is accompanied with such a modification of the circulation that the blood flows through the vessels, as is the case after section of the sympathetic, without becoming properly de-arterialised. His experiments, he considers, suggest that, in diabetes of the human subject, the blood, in consequence of vaso-muscular paralysis, is allowed to reach the portal vein in an imperfectly de-arterialised condition, and thus determines the escape of sugar from the liver. We understand his results are to be brought forward at the Royal Society as soon as its meetings commence.

DIGESTION AND ABSORPTION IN THE LARGE INTESTINE OF MAN.

CZERNY and Latschenberger have lately had the opportunity of examining the physiological processes taking place in the large intestine, in a case in which the inferior segment of the alimentary canal, corresponding to a length of about 12 inches, was not continuous with the upper part. The absorbing surface was estimated at about 240 square centimetres, and the cubic contents at 154·5 cubic centimetres. Under pressure of a column of water 40 centimetres in height the portion of intestine would contain about 200 cubic centimetres. The method of research consisted in introducing the fluid or other substance to be examined into the upper opening through a caoutchouc tube, and after a determinate time again withdrawing it by aspiration, and washing out the cavity with pure water. A comparison was then made between the fluid injected and that withdrawn. In the researches on digestion sharp-angled fragments of albumen were introduced, but neither these nor portions of fibrin exhibited any indications of having undergone digestion, and there was no formation of peptones. Fat was not emulsified, nor was starch converted into sugar. Even after a period of two months and a half, pieces of albumen were only eroded at the edges. In regard to absorption, about 40 or 50 grammes of water were absorbed in about seven hours. The albumen of the egg, if in a state of solution, could also be absorbed to a considerable extent. The addition of common salt materially prevented absorption of the albumen, and if much were added the intestine contained more fluid than before, as a process of exosmose was established. Both fat and starch paste underwent absorption to some though not to any very great extent. In twenty-four hours only 90 grains of albumen could be absorbed at most, a quantity wholly insufficient to support life.

SANITARY NOTES.

MR. J. LIDDLE has just issued his annual Report on the sanitary condition of Whitechapel, for which district he is medical officer of health. The most important part of Mr. Liddle's report is that which relates to the constant-service system of water-supply, which is being gradually introduced into his district, and the northern part of which is supplied by the East London Waterworks Company. The cost to the owners of houses in making the alterations ranges from 7*s.* 6*d.* upwards, according to the amount of piping required; but the gross cost is not nearly so much as was anticipated. "Screw-down" taps are in general use, and in a short time every house in the district where a constant supply is given will be provided with a stop-cock, fixed in the street, so that the occupiers can turn off the water without difficulty when repairs are required. Mr. Liddle states that, at or about the end of next year, the whole of the Whitechapel district will be supplied on the constant-service system, that all butts and cisterns will be abolished, and that the inhabitants will be enabled at all hours to procure a glass of pure and cool water direct from the main. We congratulate the medical officer of health for the well-known zeal and energy with which he has conducted this very important sanitary reform in his own district.

AMATEUR CONJURING.

IN the course of an investigation held last Saturday at the London Hospital into the cause of the death of a boy aged six years, some curious particulars came to light. It would appear that a favourite amusement with the juvenile population of Bethnal-green is the practice of pushing glass beads into their ears with the delusive pretence of being able to withdraw them through the mouth. On Friday, the 24th ult., the lad in question attempted the trick, with the result of firmly embedding a bead in his left ear. On the next day he was removed to the London Hospital, where the bead was, after considerable trouble, extracted. The boy, however, died on the following Wednesday, and a post-mortem examination revealed the fact that extensive inflammation of the brain had taken place. It also transpired during the inquest that five other cases of injury to the ear produced by manipulating beads in the organ had been treated by the officers of the hospital. The jury very naturally wished these facts to be made public, and so serve as a warning to parents and children.

HOUSE OF REST FOR OVERWORKED NURSES.

WE understand that it is contemplated to establish at Harrow a home of temporary rest for trained nurses, and that a lady living in the neighbourhood has undertaken to give £80 a year towards the support of such an institution, and to be responsible for its management. It is not intended to be in any sense a hospital, but a means of rest and recreation for nurses whose health has broken down under continued work. It will to a certain extent be self-supporting, as a sum of 7*s.* a week will be required of each inmate for maintenance, but the power of modifying this rate in exceptional circumstances will be reserved. We wish the scheme every success. The London and Westminster Bank has opened an account for subscriptions, which are to be made payable to Miss Catherine Whitehead, Harrow.

THE WINDSOR CASTLE DRAINAGE.

SOME two years ago this topic formed the subject of a special report in THE LANCET. It is sufficient just now to remind our readers that what is called the separate system was adopted in the construction of these works, and we are enabled to report that the results have been eminently satisfactory, thanks to the skill and energy of Mr. Menzies, the deputy ranger of Windsor Forest and Park. The drainage works of Eton are being constructed on the same system, and we hope two or three weeks hence to give a *résumé* of the works accomplished in both cases, as a possible guide to those sanitary authorities who are now in a chaos of cloud and despondency as to the disposal and utilisation of their sewage.

THE HOP-PICKERS.

As we write, from 28,000 to 30,000 persons of both sexes and all ages have migrated from various parts of the country, but chiefly from London, into Kent, Surrey, and Sussex. We have during the last three or four years persistently directed attention to the very insanitary conditions under which these labourers perform their work, and to the fruitful foci that they present for the origination and

elaboration of epidemic diseases. Time was, and not so long ago, when the scenes of indecency and immorality that occurred among these temporary inhabitants of some of the fairest counties in England were unparalleled in their intensity, and a vast amount of room still exists for improvement. There are, as with shipowners, a number of hop-growers on a large scale who provide for the sanitary safety of their *employés*, but a vast number of small holders exist, who, like the possessors of the small coasting craft, either will not or cannot look after the well-being of their servants. We are curious to know how a clause on this subject that has been introduced into the Sanitary Laws Amendment Act will work, and how far it will be influenced by the local interests and proclivities of rural sanitary authorities.

HYGIENE AFLOAT.

SOME weeks ago we called the attention of our readers to the fact that men working in the Royal dockyards between the double bottoms of armour-plated ships were frequently affected with symptoms of lead-poisoning. It appears that during the past few months several cases of this kind have occurred in Chatham Dockyard. Dr. Jack, R.N., the surgeon in charge, has recommended that each man employed in this kind of work shall be furnished with a relay of canvas suits, as it is evident that much of the lead used clings to the men's clothes, and so increases the danger.

THE Board of Visitors appointed for the present year to inspect the Royal Military Academy, Woolwich, report favourably of the health of the cadets and of the sanitary state of the buildings. There have been a few cases of measles, not, however, attributable to defective hygienic arrangements. The medical officer has again directed attention to the want of covered communication between the sleeping rooms and the baths in parts of the buildings, but the Board do not supplement his request, and are, moreover, of opinion that cadets likely to suffer from such exposure as that complained of are not suited for a military life. The want of a spacious recreation ground seems to be acutely felt at the Woolwich Academy.

THE Empress of Austria visited Bethlehem Hospital on Tuesday last, and was conducted over the institution by Dr. Rhys Williams, the able and well-known resident physician. Her Majesty visited all the wards, and conversed with many of the patients, both male and female. The Empress spent two hours in the hospital, and on leaving expressed the great gratification she had derived from her visit. We are pleased to learn that Her Majesty has since sent Dr. Williams a very handsome set of studs as a souvenir of her visit, and also given £20 to be distributed amongst the attendants of the hospital.

OUR analysts are recommended by their brethren in Scotland to look after soda-water. Dr. Wallace, of Glasgow, found lead in the proportion of 9-100ths of a grain per gallon in a bottle submitted to him for analysis, which probably caused symptoms of lead-poisoning in a lady who had been advised to drink soda-water freely, and who had indulged in this presumably harmless fluid to the extent of six or seven bottles a day.

WE understand that the statue of Her Majesty, the arrival of which at St. Thomas's Hospital we noted last week, and which has been temporarily erected in the central hall of the building, will not remain in its present position, which is found to be unsuitable, owing to the low pitch of the ceiling and the defective lighting; and it will, therefore, be placed in the well of the central staircase.

MR. TATHAM, medical officer of health for Salford, reports that the death-rate of the town for the past year was 29·18 per 1000. The period was marked by a lengthened visitation of measles, which does not, however, account for the high rate of mortality which prevailed. Although Mr. Tatham is supplied by many medical practitioners with information as to cases of infectious disease coming under their treatment, he is convinced that these returns do not represent a tenth part of the disease which actually occurs in the town, and of which he has no means of obtaining knowledge. A large amount of good sanitary work was performed during the year, including the demolition of fever dens, the closing of cellar dwellings, and the removal of midden cesspools. The river Irwell would appear to be in a very offensive and dangerous condition, and unfortunately there is no immediate prospect of preventing its pollution.

A RECENT circular from Port Said states that there is no longer any doubt that the plague has broken out in Arabia (in Assyr), and the Egyptian sanitary authorities have subjected an Austrian steamer, the *Oreste*, to twenty-one days' quarantine at a place called El-Wedg, ten miles from Suez. This steamer arrived from Jeddah and Hodeidah some five days ago, having left those ports just as some cases of the plague had occurred. This is of considerable importance to a portion of the steam shipping interest, as it will to a great extent interfere with the Mahommedan pilgrimage to Mecca this season, which is a source of profit to certain companies who carry the pilgrims from the far East and from the Mediterranean and Black Sea to Jeddah and *vice versâ*.

WE are pained to learn that among the batch of prisoners who were atrociously butchered by the Carlists a few weeks ago was an unfortunate member of our profession. When will the civilised European powers put a stop to the fratricidal and revolting war now going on in Spain? Not, to all appearances, until a few more newspaper correspondents are shot.

LORD STRAFFORD has offered to defray the cost of erection of a house in the eighth block of the Ventnor Consumption Hospital, which, when built, will make the entire range of buildings complete. This house is to be called "Lady Agnes Byng's Hospital," in memory of the Earl's first wife, fifth daughter of the late Marquis of Anglesey.

IN London 1303 deaths were registered last week, including 23 from measles, 62 from scarlet fever, 26 from whooping-cough, 32 from different forms of fever, and 166 from diarrhœa. No death from small-pox was recorded. It will be seen that the mortality from diarrhœa is rapidly declining.

THE result of the important case of Jay *v.* the Gresham Life Insurance Office, tried at the recent assizes at Leeds, is not such as to encourage insurance offices to question their liability to pay after death the amount insured. We shall consider the questions involved in more detail next week.

WE learn that a Rowing Club has been formed at the London Hospital, which has received the most active support of both staff and students, Dr. Andrew Clark being president.

DURING the voyage of the emigrant ship *City of Adelaide*, which lately got aground on Henley Beach, near Adelaide, eight deaths from scarlet fever occurred on board.

THE BRITISH MEDICAL ASSOCIATION MEETING.

(From a Correspondent.)

A VERY common phrase, when an entertainment has given entire satisfaction, is that it left "nothing to be desired." And certainly those who visited Norwich the other day would be inclined to use this hackneyed saying. The gentlemen entrusted with the arrangements had thought of almost everything. The rooms were handsomely decorated, the inner man was bountifully cared for, every convenience surrounded the visitor, and even a smoking-room had been opened. This last attention was the work of Mr. Wentworth White, who met with a little opposition from parties who probably thought that plentiful luncheons followed by the weed might unhinge the cerebral functions. But everybody seemed happy, and the profession at Norwich must have felt pleased at the look of the whole proceeding. Wherever private hospitality was extended it was carried out with the utmost liberality, and there was certainly no lack of excursions and feasts at the conclusion of the meeting.

And yet a hypercritical observer might, especially if he felt a little cross at the rain, have exclaimed that, after all, the gathering left *something* to be desired.

In the first place, the ill-humoured observer might say that the authorities keep the members at arm's length, and do not look sufficiently on the Association as a republic. At a stated hour every day the President should receive every member individually, and give him a welcome. The advantage of this is obvious, nor would the task be very crushing, and the humble member, too often a little snubbed, would feel at home and take a greater interest in a meeting where he is considered as somebody.

Our critic would perhaps say that he does not see the advantage of long addresses, which, though full of merit, may, the same week, be enjoyed as much either in Paris or the Orkney Islands as by those who hear them delivered; nay, perhaps more so. What we want, he would say, are animated discussions in the sections, where the eminent men who are entrusted with the addresses might state their opinions, and have them discussed; indeed, Dr. Hughes Bennett attempted something of the kind after one of the addresses, but the attempt was ill-timed. The sections would be better attended and more animated. As it was, some of them mustered, in the first hour, but a few members. In one section discussion was so far stifled that the paper (against the regulations) extended to an hour. Free and unreserved opportunity for the expression of opinion should be the watchword when practical men from every part of the kingdom assemble for scientific purposes. Some members read two papers in the same section; this, except on a dearth, is unpardonable; and it came to the critic's ear that in one section a physician gave up reading his essay, as no proper time was allowed him. It was said in the *Journal* that the papers would become the property of the Association, and that the secretaries would take charge of them for publication. But in one section at least not the faintest attempt was made by the Secretary to take charge of the papers.

Nor are the οἱ πολλοὶ of the Association allowed to give their opinions freely enough when reports are brought before the general meetings. The oligarchical always prevails over the democratic. Some of the officers are elected over and over again, and thus contract habits of despotism. Indeed, continues the discontented observer, this mistake goes so far that, in one branch not far from London, a nice little aristocracy is being carefully reared by making each retiring president a vice-president: a most irrational step backwards.

But, after all, Norwich may boast of having had a most successful meeting, and hardly anything could surpass the brilliancy of the soirée at St. Andrew's Hall. It would, however, have been but courteous on the part of the President and some members of the Committee of Council if they had made it a point of receiving their guests at the entrance of the hall, and not allowed them to walk in on simply giving up their tickets, as is customary at a concert.

But the dinner, says our critic, was decidedly bad; and people paying £1 5s. should not be expected to spoil their stomachs by inferior cookery, or to injure their teeth by tearing at tough quails and old game. The unexpected number of guests created a little pardonable confusion; but this does not excuse bad wine. At a well-organised dinner the council should receive the guests, see that they are seated according to their wish, and jealously watch over the comfort of the members.

If our critic were allowed to go on, he would condemn, in no measured terms, the absurd arrangement of the tables, which was so faulty that, as regards hearing the speeches, two-thirds of the guests might as well have remained in their respective homes. He would describe, in forcible language, the long tables abandoned by their tenants and looking like those of a banqueting hall from which an avenging hand had scared the feasters. What has become of these tenants? Some have gone away, and others crowd round the cross table to catch a few words from the feeble voices of some of the orators. Amongst these, however, two voices were not feeble. One was stentorian, and rang through the hall, the speaker choosing to mount on a table. But we will not allow our critic to go further, for he might be too severe touching the speech alluded to, which aimed at creating hilarity in speaking of serious things. We will hear no more complaints; but, having permitted the statement of a few shortcomings, we hope some of them will not be noticed at the next meeting.

The sad difference which occurred on the 13th respecting vivisection is of too great importance to be treated in this discursive style. It to be regretted that the otherwise very pleasant meeting in the ancient city of Norwich should have been marred by this unhappy incident.

LUNACY.

THE Twenty-eighth Report of the Commissioners in Lunacy, which has just appeared, commences with a special allusion to the sad end of Mr. Lutwidge, one of the Commissioners, who, as may be remembered, was killed on the 21st of May in last year, by a blow with a nail dealt by a patient at Fisherton-house Asylum, which Mr. Lutwidge and Mr. Wilkes were at the time inspecting.

The usual statistics show that 62,027 lunatics were registered on the 1st of January last, indicating an increase of no less than 1731 persons as compared with the register of last year. Of the total number 31,371 are accommodated in county and borough asylums, 2772 in registered hospitals, 4713 in licensed houses, 358 in naval and military hospitals and the Royal India Asylum, 520 in the State criminal asylum, 15,018 in workhouses, 436 as private single patients, and 6839 as out-door paupers. It appears that during the last ten years the average annual increase of lunatics has been 1723 persons, and it is necessary to bear in mind that in the above classification those in workhouses include the inmates of the metropolitan district asylums at Leavesden, Caterham, and Hampstead. A total of 32,878 pauper patients were, on the 1st of January last, detained under statutory orders and certificates in asylums, hospitals, and licensed houses. Two new tables of statistics are added in this report, one of which shows the actual increase or decrease of pauper lunacy in the several union counties as compared with the previous year, and the other gives for the last ten years the annual averages of the admissions, recoveries, and deaths, in the several county and borough asylums and hospitals. It must be remembered that the statistics of the Commissioners do not include all lunatics, imbeciles, and idiots in England and Wales, for, according to the census of 1871, 69,019 such persons then existed, whereas the returns made to the Commissioners for the 1st of January preceding showed but a total of 58,060 persons. Of cases occupying county and borough asylums, the recoveries, as compared with the total admissions, were in the proportion of 33·95 per cent., or 2 per cent. below the average of the last fifteen years, the mortality being also somewhat lower. It is satisfactory to know that, in consequence of the recommendations of the Commissioners,

the proportion of post-mortem examinations to deaths has, during the past four years, risen from 40 to 61 per cent.

A somewhat ingenious plan of a simple and economical ward for epileptic or suicidal patients has been furnished by Mr. C. H. Howell, of Lancaster-place, which provides for the accommodation of forty-eight patients on each floor, six being accommodated in single rooms, and forty-two in a large dormitory. The rooms are so planned that all the beds can be seen from any point, so that it is assumed that one attendant can take charge of all the patients in the large as well as the small rooms. A death by violence is reported as having occurred at the Durham Asylum, in which, although twelve ribs and the sternum were broken, no evidence could be adduced implicating any of the attendants. A blind man was killed at Hanwell from falling down a staircase improperly left unprotected. Two other unexplained cases of broken ribs are also recorded as having occurred at the county and borough asylums. The statistical abstract as to these institutions shows that the total average weekly cost per head was 10*s.* 3*d.* in the county and 11*s.* 11½*d.* in the borough asylums. When we turn to the notes on hospitals we find that St. Luke's again receives unfavourable comments. The case-books are in arrear, a larger staff of attendants is required, a carriage ought to be kept for the patients, and another resident medical officer ought to be appointed. But "the removal of St. Luke's Hospital into the country has not yet been achieved," and until this radical change is accomplished few other reforms can be anticipated. Three casualties occurred at the Broadmoor Asylum, as to which establishment a special report has been made, which must be noticed specially on a future occasion. The licensed houses, metropolitan and provincial, appear to be more particularly criticised than in former reports, and several cases are cited showing great laxity and neglect on the part of the proprietors. In particulars recorded as to the insane in workhouses, the insufficiency of the dietary is again made the subject of comment, and the commissioners remark that "an opinion that the house diet for the able-bodied paupers of workhouses is sufficient for the insane inmates appears to prevail with many medical officers of these houses."

Five prosecutions were directed by the commissioners during the year on account of the illegal detention, ill-treatment, and neglect of insane persons, and two infringements of the law were discovered which requires medical practitioners to be registered under the Medical Act of 1858 before they are entitled to sign a certificate of insanity under the Lunacy Acts.

NEW SYDENHAM SOCIETY.

THE sixteenth annual meeting of the New Sydenham Society was held at Norwich, on Thursday, the 12th inst., under the presidency of Dr. Waters, of Chester, when Mr. Cæsar H. Hawkins, F.R.S., was elected president, and Mr. Jonathan Hutchinson hon. secretary for the ensuing year. The report and balance-sheet presented by the Council proved that the financial condition of the Society was highly satisfactory, there being over a thousand pounds in hand, besides a very valuable stock of works. The principal works which the Society has now in progress are its "Atlas of Skin Diseases," which it is intended to continue for some years longer; its "Retrospect of Medicine and Surgery," which appears biennially; and a new and revised edition of "Mayne's Lexicon." A fourth volume of Hebra's work on Skin Diseases will probably appear shortly, also a second part of the descriptive catalogue.

THE CORONERS FOR MIDDLESEX.—The Marquis of Salisbury has obtained a return, printed by order of the House of Lords, showing for five years, ended 30th June last, the payments out of the county rates in disbursements of each of the coroners. Dr. Diplock, respectively £1048 16*s.* 6*d.*, £1118 18*s.* 8*d.*, £1278, £1424 9*s.*, and £1383 8*s.* 6*d.*; Dr. Lankester, £3847 5*s.* 4*d.*, £4620 6*s.* 6*d.*, £3894, £4098 4*s.* 6*d.*, and £4144 8*s.*; Mr. Humphreys, £2816 14*s.* 6*d.*, £2932, £2929 5*s.*, £2985 9*s.* 4*d.*, and £3145 16*s.* 1*d.*; Mr. Bedford, £689 16*s.* 6*d.*, £728 18*s.*, £735 2*s.*, £795 15*s.* 6*d.*, and £705 1*s.*; and Mr. Payne, £64 14*s.* 10*d.*, £97 9*s.* 8*d.*, £62, £102 6*s.* 6*d.*, and £93 9*s.* 6*d.*

Correspondence.

"Audi alteram partem."

THE "PECULIAR PEOPLE."

To the Editor of THE LANCET.

SIR,—The recent decision of Baron Pigott in the case of Thomas Hines, one of the "Peculiar People," leads one to inquire to what extent this sect may be allowed to indulge in their refusal to receive medical advice. Some years ago I was called to a poor woman who had been in severe labour for several hours, and was in a state of considerable exhaustion. I found a very contracted, rickety pelvis, and it was evident to myself, and to a gentleman from St. Bartholomew's, who was present, that without craniotomy it would be impossible for the head to pass through it. I therefore sent for the husband and explained the circumstances to him, when, to my surprise, he emphatically forbade me to interfere, and declared that "the Lord would deliver his wife from her trouble, or she would die, according to His will." The neighbours had fetched me, and he did not approve of my presence. His views were those of the "Peculiar People." The pains were forcible, and a ruptured uterus seemed not improbable in case of delay, so, after endeavouring in vain to explain to him, as a mechanic, that it was impossible to pass a solid ball with a diameter of four inches through an aperture of a diameter of two inches without in some manner reducing the size of the former, I told him that as I considered his wife's life in urgent peril, and he was evidently totally devoid of ordinary common sense, I should proceed to act on my own responsibility. The poor woman simply cried to be delivered. I therefore ejected the man from his own room, and performed craniotomy at once, extracting the fœtus with considerable difficulty.

There is little doubt that to this day the husband considers me in the light of a murderer. Had I gone away at his command, and the poor woman had died, as most assuredly she would, how should I have stood before a jury, and would it have been decided in the case of the husband that "he had exercised his judgment, though a perverted one, to the best of his ability, and therefore it did not amount to criminal neglect"?

Cases requiring craniotomy may occur again among the "Peculiar People," and the patient may die undelivered, "by the will of God," no medical attendant having even seen her.

If this be an honest mistake, "the result of ignorance and superstition," and therefore not amenable to punishment, the sooner the Legislature takes steps to alter or amend the law relating to it, the better.

I am, Sir, faithfully yours,

CLEMENT GODSON, M.D.

Upper Brook-street, W., August 20th, 1874.

THE USE OF SARRACENIA PURPUREA IN SMALL-POX.

To the Editor of THE LANCET.

SIR,—I hold it to be the duty of a medical man to make known to the profession his experience of any particular remedy when it has seemed to him to have been of any use in the treatment of a particular disorder. If you will allow me the use of your columns as a means of thus communicating to the profession a few remarks on the use of the above-named drug, I shall feel obliged; especially, too, as small-pox is now engaging the attention of the Newmarket medical men, my remarks may not be out of place.

I first tried this drug some eight or ten years ago (having obtained some from Messrs. Savory and Moore) during an epidemic of semi-confluent small-pox amongst the adults and infants of a small village in the country belonging to a Poor-law district I then had, and I found that it relieved to a wonderful extent, in some cases, the general malaise and fever that accompany this complaint. I used first to commence by giving simple aperient medicines for a few days, and on the fifth or sixth day of the eruption this medicine was given by itself every three or four hours, and

the good effects soon became apparent in the altered looks and feelings of the patients, especially relieving his pains and feverishness.

I cannot pretend to give an opinion as to the way in which the drug acts. I should like very much to know its *modus operandi*. I only know that it seemed to me to do the good I have just stated. I tried it again about three years ago on some half dozen cases I had in a London suburb, with the same good results; and I well remember in one case, that of a man about thirty years of age, on discontinuing the drug for two days whilst he had aperients, his beseeching me, almost with tears in his eyes, to give him some more of this medicine, as it relieved him, "more than he could tell, of his headaches and pains that almost drove him mad."

Another remedy I used always to apply to the eruption, especially to the face, was one that I found recommended by Dr. John Hughes Bennett in his admirable work on Clinical Medicine; and I can only say that when it was applied thoroughly and allowed to remain on undisturbed, and renewed occasionally when required, it acted most successfully in allaying irritation, and prevented pitting almost entirely. I have read of many other plans recommended to fulfil these conditions, but have never tried them, so satisfied am I with this mode of treatment. His formula is—Carbonate of zinc, three parts; oxide of zinc, one part: rubbed in a mortar with olive oil to the consistence of thick cream.

One word on vaccination. The second case I had to treat was that of a woman who had been confined only one month. The first thing I did after seeing her was to vaccinate her infant. The arm came to perfection on the eighth day; and on the eleventh day the infant broke out with the small-pox, but in a modified form. This happened in three cases under exactly the same conditions. All the patients got perfectly well; but had the children not been vaccinated they would in all probability have died.

If these few but imperfect remarks lead to the further trial of this drug, and the results, good or bad, be made known, I shall feel that this note has been of some benefit.

I remain, Sir, your obedient servant,

Harling, Petersfield, Hants, August, 1874. A. L. GRIFFITH, M.D.

THE DISPERSION OF TUMOURS BY PUNCTURE.

To the Editor of THE LANCET.

SIR,—In Deputy Inspector-General Cameron's most interesting and instructive article "on the dispersion of tumours by puncture," in last week's LANCET, he says (page 268), "I felt certain he had a deep abscess somewhere in his liver, and made two deep unsuccessful explorations for it with an ordinary trocar. Fancying I had not gone deep enough, I took a long rectum trocar, and with that hit the spot, and evacuated about two ounces of thick matter."

Feeling the greatest interest in this subject, I hope the Deputy Surgeon-General will kindly tell us how many inches he passed the first trocar, and how many the second, into the substance of the liver, and oblige

Your obedient servant,

Paris, August 23rd, 1874. J. MARION SIMS.

SKETCHES OF CONTINENTAL HOSPITALS.

(*By our Special Correspondent.*)

III.—LEIPSIG.

"A GERMAN Professor has nothing to do but to think" is the pithy and wise dictum of a celebrated Professor of Physiology in one of its chief universities. The advantage of the State endowing professorships, which are of sufficient value to induce men to devote their lives to patient thought and to scientific investigations, rather than to practice, is fully seen in this city. Leipsig, the only university of Saxony, has a whole suburb full of new palatial buildings where science in its various departments is cultivated. The Weissenhaus Strasse contains in succession an Anatomical Institute presided over by Professor His; a Physiological Laboratory in which Ludwig and his pupils have during the last eight or nine years made some of the greatest advances in that science; the Chemical Laboratory of Professor Kolbe; a large hospital containing from five to six hundred beds, and a Pathological Institution, with a well-filled and valuable museum, in which Professors Wagner and Thierfelder find ample occupation; and in the same building Professor Hoffman also carries on the departments of pathological chemistry and hygiene. These, with a fine handsome building devoted to physical science, and a gynæcological institute and an eye hospital at some little distance, under the care of Professors Crede and Coccius respectively, afford to the student of medicine rare opportunities for both the theoretical and practical study of his profession. Seldom are English students found availing themselves of this school, the larger and more attractive, but not more valuable, universities of Vienna and Berlin being generally patronised by them; but Americans, Russians, and representatives of most of the other European nations are to be found here in considerable numbers.

The hospital is composed of two parts, a two-storeyed building some twenty years old, well adapted for its purpose, and fourteen new barracks erected within the last three years in a style and with conveniences that would have delighted the heart of Sir James Simpson. Seven of the barracks are devoted to medicine, and seven to surgery. One corridor connects the various surgical, and another most of the medical, wards, and each pavilion has twenty-four beds. There is, however, one large detached medical ward, capable of containing forty beds, in which fevers, small-pox, &c., are treated. Separate blocks opening on to the main corridor are provided for the purpose of a bath-house and for the operating theatre, which is commodious and well lighted, and has two rooms adjoining for Professor Thiersch and his principal assistant. A description of the mode of construction of these barracks will be given in the article on Dresden, as the same system prevails there.

The drainage of Leipsig is detestable, but the authorities who govern the hospital have provided an admirable system of drainage, and of inodorous water-closets, which might, with great advantage, be adopted in all the German hospitals, and thereby one of the greatest blots in their construction and management might be removed. A brick structure standing in the hospital garden contains the various apparatus necessary for the mixing of the disinfecting material which is supplied to the wards, and for the subsequent filtration and deposit of the excreta, which are daily removed from them. The material consists of 100 parts of lime well mixed with 240 of water, to which are added 27 parts of chloride of magnesium, first dissolved in 500 parts of water, and, lastly, 12 parts of coal tar. When the ingredients are thoroughly combined, it is the duty of one man to fill a zinc reservoir in each water-closet with a quantity equivalent to 1 lb. weight for each patient in the ward, and also to remove daily the galvanised iron reservoir of each closet, and to convey its contents to the depositing tanks. In this way all disagreeable odours both in the wards and closets adjacent are avoided, and little if any smell is noticeable even in the disinfecting room. The effluent water, which is certainly free from putridity, passes into the main drain. The cost of this system was £112 last year, including material and labour, a cost which, considering the perfectness of the result and the simplicity of the system, is really very insignificant. The only drawback to this plan of drainage is, that the solid deposit is not found to be of much value as an artificial manure. Probably this system might be useful in some of our provincial hospitals, where there is no adequate means for the removal and disinfection of the sewage arising from them.

Prof. Wunderlich lectures on Clinical Medicine in a theatre in the older part of the hospital. It is a long, low room, badly ventilated, with double windows, and ill adapted for hearing. His researches on Therapeutics in Disease are still continued. He has about 300 beds.

Prof. Thiersch has an equal number of surgical patients, and his clinical lectures are given daily in the operating theatre, a student being called down by the assistant to examine each case as it presents itself. The treatment of wounds by salicilic acid is at present engaging much of Prof. Thiersch's attention. It may be used according to Lister's plan, in place of carbolic acid, than which it is much

cheaper, and also for washing or irrigating wounds on the open system. Dressings may remain fourteen days without fetor being perceptible; but little fever or irritation follows its use, and suppuration is comparatively small. In a case of wound of the knee-joint in which four free openings had been made and drainage-tubes introduced, the use of the salicilic acid solution (1 part dissolved in 300 of hot or 1000 of cold water) had produced an excellent result. Hectic was slight, there was no elevation of temperature, and there were no more bacteria to be found in the dressings, when removed, than when Lister's dressing had been kept on for three days. In another case excision of the shoulder-joint had been performed twenty-three days before, for caries, in a man aged fifty-two. Suppuration had been kept sweet by the daily irrigation and washing of the wounds after this manner, and the patient was quite well, having had no febrile disturbance. Prof. Thiersch's researches on this subject, and also on the treatment of epispadias and extroversio vesicæ by a new operation, which he has now used with success in nine cases, will shortly be published. Sponges are not used at operations, but balls of cotton-wool previously steeped in salicilic acid and covered with muslin.

NEW ZEALAND.

(From an occasional Correspondent.)

A FEW notes about medical matters may not be unacceptable to those of your readers, whether lay or medical, who are thinking about settling at the antipodes, or who have friends already resident here.

If I were to attempt to correct all the mistakes and blunders into which people at home very naturally fall about "the colonies," as these Australasian colonies are somewhat bumptiously called—as if there were no others,—I should have an endless task. Briefly to say that everything here is exactly like what it is at home, only much dearer, would lead my readers into other errors, but errors far less serious than those usually prevalent. The fact is that a sort of romantic halo surrounds the colonies; people imagine that they are going to lead a life of adventure, that they will wear red flannel shirts, wideawake hats, big boots with the trousers stuck in them, and, perhaps, a revolver in their belt. "Would it surprise you to learn" that I have been fourteen months in the colony, and have never yet seen a man attired in this costume or anything like it; that I have never seen a revolver except my own; that the police are far stricter here than in London; and that if any one were to do anything here which he could not do at home without being thought eccentric or penurious, he would be in the same position here? Does a young man who revolts at the conventionalities of society, and sighs after the real, the earnest, and the true, think he will escape from Europe and find them all at the antipodes, he is very much mistaken. Does he fondly imagine that, if necessary, he can take to manual labour, but still retain his position as a gentleman, he is very much mistaken. On the contrary, the conventionalities of society are probably as rigorously observed here as at home. The old days of "roughing it" are gone, and everyone now is expected to dress and behave exactly as in Europe. But it costs a great deal more to do so than at home. If you go out in the evening, a pair of white gloves costs six shillings, and clothes of every kind are at least 40 per cent. dearer than in London. Young medical men who think of coming out here to practise must bear these things in mind, and understand that it requires rather more capital to start with here than at home, unless you go "up-country." But those who know what up-country life means—its dreary isolation, its long solitary journeys over bleak and barren hills, fording of swollen rivers, plunging along through mud and sleet and snow and rain, in winter, thirty or forty miles to see a single case, will hesitate before they recommend anyone to take it up. The life is such that the great majority of the men take to drink. One hardly ever hears of a doctor up-country without the addition, "He's very clever, but it's a pity he drinks so." The want of suitable companionship, the home-sickness, and the utter want of any food for the nobler powers of our being, create a craving for stimulants which seems almost irresistible.

No one can tell who has not experienced it how the smallness and narrowness of colonial life take possession of people after a certain time. Old residents are absolutely incapable for the most part of conversing on any topic except one that belongs to the Australasian colonies. They think, read, and talk of nothing but colonial topics. The newspapers are full of colonial news of a sort, and they give literally more space to the account of some one falling down and bruising his knees in Dunedin than to the news of the resignation of M. Thiers and the appointment of Marshal McMahon, which was given us in a telegram of three lines, and passed without a word of comment! The worst of it is that people in New Zealand take no interest in the colony as a colony, but care only for their own particular province, and to a great extent only for their own neighbourhood. Each province (there are eight or nine) tries to grab as much of the colonial revenue for provincial purposes as possible. Each town or district plays the same game with the provincial revenues. Nobody cares that another province is ruined. Indeed, here in Otago, where all is thriving and prosperous at present, nothing is more relished than a sneer at the insolvency of Auckland, the poverty of Wellington, the landlessness of Taranaki, and the backwardness of "sleepy" Nelson. *We* are going ahead, and if the others do not, so much the worse for them. Hence it is that the conversation among the older colonists, turning only upon local matters, has absolutely no interest for new chums. They, on the other hand, care nothing about what most interests the new arrivals. It is nothing to them that the Liberals are "out" and the Conservatives are "in." They have heard of Mr. Gladstone and Mr. Disraeli just as they have heard of Prince Bismarck and the Duc de Broglie, and they care just about equally for all four.

Most of the professional men who have been long in the colonies are sadly behind the day in their practice. One of them, in buying a clinical thermometer, complained that it was out of order, because there was a little bit of mercury sticking in the tube, and could not be satisfied until he had shaken it down into the bulb! Many are grossly ignorant of the practice of medicine and surgery, and it is wonderfu how they ever obtained their qualifications. There have been three trials for malapraxis lately in Dunedin. The first was a case of Pott's fracture, which was treated for four months as a sprained ankle; the patient, lamed for life, with the dislocation of the tibia unreduced, recovered £100 damages and costs. Two young surgeons were produced by the defendant, and swore that the case was one of diseased joint, and that there had never been dislocation of the tibia, or fracture of the fibula, although the latter is still crooked, and the distance between the ball of the great toe and the point of the internal malleolus is nearly an inch less in the uninjured foot than in the other. Another was a case of fracture of the femur, just below the trochanter minor. The surgeon in charge treated the case with a short, straight splint that reached only to the crest of the ilium, had no holes for a perineal pad, and no indentations at the other end, or any means by which the foot could be fixed. No extension was made, or could be made, and there was great deformity. The defendant compromised the matter, after the first medical witness for the plaintiff had been examined, by paying £50. The third was a remarkable case, inasmuch as the defendant was charged criminally with the manslaughter of a woman whom he had been called to see in labour. It was proved (and not denied) that when he arrived he found the woman in strong labour, with the arm projecting from the vulva. He made an examination "roughly," as one of the women swore, and then she says he tried to pull the child out by the arm. She accused him of this, which he instantly denied, according to her own statement. He then said that he should wait a while, as the pains were too strong for him to attempt turning. However, the women were dissatisfied, and proposed to send for another practitioner. This he considered as an insult, and said he should leave the house, which he did, after being there an hour or so. Another surgeon was sent for from a distance of thirty miles, and when he arrived, several hours after, he found the woman collapsed, and no pains. He turned and delivered her, and states that he found the uterus ruptured. She died a day or two afterwards. Thereupon a coroner's inquest was held, and the man first in attendance was committed on a charge of manslaughter. One of the women swore that he was under the influence of drink when he arrived at the patient's house. This, however, was positively

disproved, though it was proved that he was in the frequent habit of drinking to excess. The counsel for the prisoner, for some unaccountable reason, refused to call medical evidence in his favour. The judge charged the jury that the prisoner had been guilty of manslaughter by ignorantly rupturing the womb; that the operation of turning was a perfectly easy one, which could be accomplished in a few minutes, as shown by the way in which the second surgeon had turned and delivered, and the jury found the prisoner guilty. I heard the verdict, and went out of court with a determination never to attend another midwifery case in the colony unless the verdict could be upset. Three of us, all much senior to the witness who had given evidence, made a representation to the Governor, and the unfortunate surgeon was pardoned. Part of the prejudice against the prisoner arose from the fact that, owing to the stupid registration law in force here, he was unregistered, and therefore judged to be unqualified, although he swore at the inquest that he was a Member of the College of Surgeons and L.S.A. The Registration Act is most unjust, as a man must be at least six weeks in the colony before he can be registered, must pay a fee, pay the costs of advertising his application in a local newspaper and in the Government *Gazette*, which is published at Wellington, and go through a host of formalities, among others depositing his diplomas, with copies of them certified by a justice of the peace, with the registrar of births and deaths. During the time occupied by these formalities a man, however well qualified, cannot recover for any attendance, or even call himself a qualified practitioner without subjecting himself to a heavy penalty, even though registered at home.

I must defer to my next letter an account of the prevailing types of disease.

Dunedin, June 5th, 1874.

Medical News.

INDIAN MEDICAL SERVICE.—The following is a list of candidates who were successful at the competitive examination held at Burlington House on Aug. 10th:—

	Marks.		Marks.
R. N. Stocker ...	2340	C. J. M'Cartie ...	1898
G. Bomford ...	2190	J. C. Lucas ...	1885
A. Barclay ...	2168	A. P. Adams ...	1840
W. O'Hara ...	2135	M. Sweetnam ...	1800
E. Tootell ...	2065	J. P. Oliver ...	1795
H. A. C. Gray ...	1935	T. Hume ...	1755
J. L. O'Keefe ...	1910	D. N. Parakh ...	1720

Twenty-eight candidates competed for fourteen appointments, and all were reported qualified.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on Aug. 20th:—

Key, Augustus Cooper, Elliott-road, North Brixton.
Skinner, Edward, Red-hill, Sheffield.
Stocker, Charles Joseph, Globe House, The Green, Stratford.

The following gentlemen passed the Primary Professional Examination on the same day:—

George Richard Chadwick, Guy's Hospital; George Charles Karop, Middlesex Hospital; Richard Joseph Pitt, Charing-cross Hospital.

THE LATE MR. T. P. TEALE, F.R.S., OF LEEDS.—A bust of the late Mr. Teale, with a pedestal of Sicilian marble, has just been presented to the Leeds Infirmary by his widow. It is a replica of one taken in the year 1843 by Mr. Earle, which was exhibited in the Royal Academy, and was admired not only as a work of art, but as a faithful likeness of Mr. Teale, who was then in the prime of life.

PRESENTATION.—Dr. Fleming a few days ago became the recipient of a handsome testimonial from some of the leading inhabitants of Maryport and its vicinity, where he had for some years been in practice. The presentation took place at the Doctor's residence, 30, Clayton-street West, Newcastle-upon-Tyne. The testimonial consists of a massive, valuable, and highly artistically executed epergne. It is typical in design, representing the vine and its branches in frosted silver, and bears the following inscription:—"Presented to John Nicholson Fleming, M.D., by a few friends, in recognition of his public and private worth, on the occasion of his leaving Maryport to commence professional practice in Newcastle-upon-Tyne. August, 1874."

Medical Appointments.

ADRIEN, J. W., L.K.Q.C.P.I., M.R.C.S.E., Medical Officer to the Workhouse Infirmary and Fever Hospital of the Drogheda Union, has also been appointed Apothecary, vice M'Greevy, resigned.

CADDY, H., M.R.C.S.E., L.S.A.L., has been appointed Junior House-Surgeon to the Royal Southern Hospital, Liverpool, vice Williams, appointed Senior House-Surgeon.

COOMBS, C. P., M.D., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for No. 3-2 District of the Shepton Mallet Union.

FERGUSON, J., M.A., has been appointed Professor of Chemistry at the University of Glasgow, vice Anderson, resigned.

FRASER, J., M.D., C.B., has been appointed an Hon. Physician to Her Majesty, vice Geo. Stewart Beatson, M.D., C.B., deceased.

HEGINBOTHAM, E., M.D., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for No. 3-3 District of the Shepton Mallet Union.

HYATT, J. T., M.R.C.S.E., L.R.C.P., has been appointed Medical Officer and Public Vaccinator for No. 3-1 District of the Shepton Mallet Union.

JEFFERSON, T. J., M.D., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Market Weighton No. 1 District of the Pocklington Union, Yorkshire, vice Richard Jefferson, M.R.C.S.E., deceased.

JULER, H. E., M.R.C.S.E., has been appointed House-Surgeon to the Female Lock Hospital and Asylum, Paddington.

KNOX, J., M.D., L.R.C.P.Ed., has been appointed Medical Officer of Health for the North Darley Urban Sanitary District: £9 per annum; acreage 4941; population 1520.

OWEN, Mr. C. A., has been appointed Assistant House-Surgeon to the Royal London Ophthalmic Hospital.

REID, G., M.B., C.M., has been appointed House-Surgeon and Secretary to the Staffordshire General Infirmary, Stafford, vice Dudley, resigned.

ROGERS, M. C., M.R.C.S.E., has been appointed Surgeon-Dentist to the Western General Dispensary, Marylebone-road.

WALKER, C. E., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for No. 3 District of the Chesterton Union, vice Stafford, resigned.

WEBSTER, J. H., M.R.C.S.E., L.R.C.P.Ed., has been appointed Medical Officer and Public Vaccinator for No. 1 District of the Nottingham Union, vice C. H. O. Smith, M.R.C.S.E., L.S.A.L., deceased.

WILLIAMS, W., M.D., C.M., M.R.C.P.L., M.R.C.S.E., has been appointed Senior House-Surgeon to the Royal Southern Hospital, Liverpool, vice W. R. Hughes, L.R.C.S.Ed., L.K.Q.C.P.I., resigned.

Births, Marriages, and Deaths.

BIRTHS.

COLLEY.—On the 21st inst., at Hilliers, Petworth, the wife of J. N. C. D. Colley, M.B., F.R.C.S.E., Assistant-Surgeon Guy's Hospital, of a daughter.

FERGUSSON.—On the 22nd inst., at Tweed-vale, Peebles, the wife of Alex. Fergusson, F.R.C.S.E., of a son.

JONES.—On the 17th inst., at Downton, Herefordshire, the wife of Geo. T. Jones, M.D., of a son.

LAMB.—On the 21st inst., at Price-street, Birkenhead, the wife of J. Lamb, M.R.C.S.E., of a daughter.

MENZIES.—On the 20th inst., at Inverkeithing, the wife of D. D. Cameron Menzies, L.R.C.P.Ed., of a son.

NICHOLSON.—On the 19th inst., at Oldham, the wife of E. R. Nicholson, M.D., of a son.

ROBERTS.—On the 16th inst., at Bryn-Dwr, Llanfairfechan, the wife of D. W. Roberts, M.D., of a son.

MARRIAGES.

LOVE—PLUMMER.—On the 19th inst., at St. Paul's Church, Canterbury, Augustus E. B. Love, Esq., of Bournemouth (eldest son of the late Captain Love, of Canterbury), to Mary, younger daughter of the late Wm. Plummer, Esq., of St. Augustine's, Canterbury.

PAGE—RAUTHMELL.—On the 19th inst., at the Parish Church, Holme, Westmoreland, David Page, M.D., to Mary, daughter of John Rauthmell, Esq.

ROOTH—MAY.—On the 19th inst., at St. John's, Dronfield, Samuel Rooth, M.D., to Mary Elizabeth Clarke, daughter of Henry May, Esq.

DEATHS.

ASHLEY.—On the 23rd inst., Wm. H. Ashley, M.D., of Ladbroke-square, aged 55.

BINDLOSS.—On the 22nd inst., Jas. B. Bindloss, M.R.C.S.E., of Oakfield, Cheadle-Hulme, Cheshire, aged 45.

CAUTLEY.—On the 16th inst., Henry Cautley, F.R.C.S.E., of Hedon, near Hull, aged 76.

CLARKE.—On the 22nd inst., at Theresa-terrace, Wood-green, N., Edward Griffiths Clarke, M.R.C.S.E., L.R.C.P.Ed. (formerly Medical Officer for the Putney District), aged 34.

CONOLLY.—On the 24th inst., at High-street, Camden-town, N.W., Michael Alfred Conolly, M.R.C.S.E. (of congestion of the lungs), aged 42.

HILL.—On the 20th inst., Samuel Hill, F.R.C.S.E., of Wambrook, Dorsetshire (formerly Medical Superintendent of the North and East Ridings Lunatic Asylum, Clifton), aged 63.

JAMES.—On the 18th inst., Edward James, M.D., of Parkfield, Portland-road, Edgbaston, aged 67.

JAMES.—On the 22nd inst., Alfred James, M.D., of Argyle House, Forest-hill, aged 45.

LEITCH.—On the 23rd inst., John Leitch, L.F.P. & S. Glas., of Montelith-row, Glasgow.

[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

Notes, Short Comments, and Answers to Correspondents.

"THE BURNING SICKNESS."

MEXICO, particularly in the silver mining regions, is the seat of this peculiar malady, probably a species of cerebro-spinal meningitis. Sudden nausea, followed almost immediately by an acute, lancinating pain along the spine, proceeding from the base to the head, is the main symptom, the patient feeling as if a blunt knife were scraping upward. The pain having reached the occipital region causes there a sharp and poignant sensation, inducing delirium, although never unconsciousness or loss of the right use of the senses. The eyes are bloodshot and wild, with pupils greatly contracted. Sensitiveness to light is intense, so that even in his agony the patient will rise and seek a dark place. From thirty to forty minutes is the duration of this state, the patient feeling as if his head were splitting. When this condition has lasted about half an hour, the cranium sometimes distends at the fontanelles and sutures, as is sometimes the case with infants suffering from acute hydrocephalus. The sound produced by this rending asunder is occasionally loud enough to be audible, and generally at a moment when the sufferer is in full consciousness—a most painful thing to witness. The disease broke out at Bolanos three weeks ago, and is spreading.

W. M.—We never recommend a particular physician or surgeon.

THE MEDICINAL VALUE AND USE OF THE NITROGENOUS TEPID WATERS OF BUXTON.

To the Editor of THE LANCET.

SIR,—Two years ago (July 27th, 1872) I was kindly permitted to state in THE LANCET some of the more important facts and circumstances in regard to Buxton. The rapid extension of Buxton, and the increased confidence in the medicinal action of the waters on gouty and rheumatic conditions, justify me in asking permission to add a few words to that communication. The waters are so powerful in their action as to require careful use. If used in excess they weaken the system, and so far lessen its restorative power and the probabilities of benefit. If the baths are used more frequently than on alternate days, or at the most on two successive days, omitting the third day, this debilitating and disadvantageous effect is very commonly induced. It is seldom that a longer immersion than ten minutes in the bath is necessary or desirable. The amount of medicinal effect from the baths is commonly influenced by the texture and absorbent power of the skin, and promoted by the degree of friction, or rather *pressure* or *kneading* by the hands of the bather, during the immersion. This *kneading* is necessarily more useful over the insides of the legs and thighs than where the skin is more thick and the absorbent power less active. It is commonly unwise to rub the parts affected while in the bath. This is one of the most usual errors committed by bathers, and often excites irritative action, and hampers the progress of the case. For the same reason the douches are often used disadvantageously. The object must be the absorption of the curative properties of the water into the general system, much more than their introduction to parts more than sufficiently disturbed by the morbid condition. This observation applies more particularly to gouty localisations. In the rigid, dense, and dormant thickenings resulting from rheumatism, manipulation in the bath and douches of the waters are often important auxiliary means of relief. The time allowed for the so-called "Buxton course" is often too short to give a reasonable expectation of benefit. Recent cases and younger patients may be sufficiently benefited by a three weeks' course of baths; but cases of longer standing and older patients need longer treatment. It is to expect miracles rather than treatment to look for relief of morbid conditions which may have resulted from hereditary bias, and been in existence, and gradually becoming worse and worse, during months or years, in a shorter time than six or eight weeks. In cases of extreme weakness or sensitiveness, or with cardiac or other visceral complications, the waters are beneficially used, without immersion, by general or local sponging and kneadings, or compresses soaked in the waters, and thus the range of cases to which the waters are applicable has become much extended.

Yours truly,

WM. HENRY ROBERTSON, M.D., &c.,
Consulting Physician to the Devonshire Hospital
and Buxton Bath Charity.

Buxton, August, 1874.

Mr. H. Suffield.—The fees under the Factory Acts are settled by Act of Parliament, and will be found in detail at p. 11 of Glenn's Abstract of Principal Laws affecting the Medical Profession, at the beginning of the Medical Directory (Churchills).

Fair Play is too sanguine. Such laws will never be obtained from an English Parliament.

M.A.—The idea has been mooted in Manchester; but we are not aware that it has been realised there or elsewhere.

Dr. Dearden.—It shall receive attention at a very early date.

HOMES FOR FEMALE INEBRIATES.

To the Editor of THE LANCET.

SIR,—Will you or some of your correspondents kindly give me the addresses of any such homes in England? I am anxious to obtain copies of the rules used at such institutions, and any other information as to their management. The late Dr. Dalrymple, I believe, when in America engaged in making inquiries in reference to his proposal to establish dipsomaniac asylums in England, procured valuable particulars as to the regulations &c. of similar institutions in that country. Are the data he collected procurable? and, if so, to whom ought one to apply?

I am, Sir, yours &c.,

August 20th, 1874. HYDROPOTE.

THE SEWAGE QUESTION.

IT would almost appear that, after all the patient and expensive experiments made in different parts of England in reference to the utilisation of sewage, our neighbours across the Channel are destined to take the lead in the solution of this question. Paris, which has only the washings of the streets to make use of, is, according to the evidence of Mr. Chadwick, now employing sewage irrigation with the grandest results. Perhaps emulation in this matter may effect amongst us what accumulating inconveniences on the one hand, and the prospect of gain on the other, have hitherto failed to urge us to undertake with the determination necessary to success. Let us hope that when the exclusive possession of the sewage of the northern portion of London shall have passed out of the hands of the Metropolis Sewage Company—in about two years,—the Board of Works will be prepared with some practicable scheme which may solve the vexed problem of sewage utilisation, so far at least as London is concerned, at once and for ever.

Mr. Alex. H. Brewer's communication shall be kept in mind.

MORTALITY AFTER CHILDBIRTH.

To the Editor of THE LANCET.

SIR,—My attention has been called to a letter in your last week's number signed "Obstetricus," who is desirous of obtaining the death-rate in private midwifery practice. I now give him the result of thirty years' practice in this locality. Number of cases attended, over 2000:—Craniotomy, 7; forceps, 23; placenta prævia, 3; breech, 29; back, 1; footling, 5; funis, 9; arm, 7; puerperal convulsions, 3. All these were my own patients; and I would add that within the last three months I have been called in by medical neighbours to two cases of arm and one shoulder presentation, in which I performed version.

The deaths have been as follows:—4 from phthisis (from 7 to 21 days after delivery); 1 from metritis (breech presentation, 5 days after delivery); 1 from pelvic cellulitis (19 days after delivery).

I should think that Dr. M. Duncan, whom he quotes as having stated in *The Times* that the death-rate was one per cent. in childbirth, must speak of hospital practice, and not private.

Yours obediently,

DAVID J. ALLEN.

Wellington House, St. John's-wood, Aug. 26th, 1874.

To the Editor of THE LANCET.

SIR,—At the desire of "Obstetricus," I forward you the following record of 1452 parturitions, in which from all causes 8 women died:—2 from convulsions; 1, pyæmia; 3, hysteritis and peritonitis; 1, suddenly on the 18th day, kidney disease; 1, on the 26th day, phthisis. Of the 3 deaths from peritonitis, 2 were instrumental, and had been attended and allowed to linger too long by midwives; in 1 of the 2, peritonitis was actually present before delivery.

I am, Sir, yours, &c.,

Southampton, Aug. 24th, 1874. R. W. WAUDBY GRIFFIN.

A REBUFF.

AN instance of most arbitrary excess of authority on the part of a Poor-law official was lately investigated before the guardians of St. George-in-the-East. A nurse in the workhouse infirmary, who was about to relinquish her situation, complained that Dr. Belcher, the medical officer, had insisted on examining her (in the presence of the matron and three other nurses) for the purpose of ascertaining if she was *enceinte*. The nurse denied that she was in such a condition; and submitted that even if she were the medical officer was not justified in subjecting her to the indignity of an examination. Dr. Belcher did not deny the charge, and naïvely added that he had examined her for "reasons of his own." The following resolution which the guardians arrived at cannot be held to err on the side of undue severity:—"Admitting that the medical officer was informed that the nurse was, or was supposed to be, pregnant, the board is of opinion that he acted beyond the scope of his authority in taking the course he did."

M.R.C.S.—The bill is very bad. Our correspondent should send it to the College of Surgeons, whose title is falsely used; but we fear he will get little satisfaction.

THE INDIAN MEDICAL SERVICE.

To the Editor of THE LANCET.

SIR,—Amongst the "Medical Annotations" in your issue of July 4th, I find a paragraph headed "The Indian Medical Service," in which reference is made to a circular said to be "recently published by the Surgeon-General of the Indian Medical Department to all the medical officers of that service."

There are three Surgeon-Generals of the Indian Medical Department, one for Bengal, one for Madras, and one for the small Presidency of Bombay. Now, the circular referred to was, I believe, issued by the Surgeon-General of the Medical Department, Bombay, to the comparatively small number of medical officers belonging to that Presidency, and had no reference whatever to the medical officers of the other two Presidencies. As to whether or not the Chief of the Indian Medical Department, Bombay, had reason for the animadversions cast on some of the officers serving under him I will offer no opinion; but the Surgeon-General in Bengal has issued no such circular.

Your contemporary, the *Times of India*, has probably in this matter misled you; for it is characteristic of that paper to write of the Bombay Presidency as if it was all India, instead of a very small corner of it.

I trust you will give insertion to this, as it may help to counteract the unfavourable impression of the members of the Indian Medical Service which the statement is calculated to convey, and which I have no hesitation in declaring to be a most unjust one.

I am, Sir, yours &c.,

SURGEON-MAJOR,
India, July 25th, 1874. Bengal Medical Department.

Mr. George Fleming, (Chatham.)—The gentleman in whose possession the paper is will be absent from town for a week or two; but our correspondent's request shall be made to him on his return.

Dr. Balbirnie is thanked for his interesting communication. Want of space, however, precludes us from availing ourselves of his courtesy.

Mr. McDonald.—We believe not.

J. H. had better consult a surgeon in his own neighbourhood.

PROFESSIONAL ETIQUETTE.

To the Editor of THE LANCET.

SIR,—In the number of THE LANCET for August 15th you publish a letter from Dr. Sealy, of Weybridge, in which he refers to a bill paid to him by me on behalf of the late Miss T., and from which he desires that an inference should be drawn that he was the medical attendant of that lady. Permit me to repeat in the most positive language that such was not the fact. It so happens that it was I who, in the year 1854, called upon Dr. Quain by the request of this lady and her aged sisters and brother to ask him to take charge of them; and it was I who, as you have been informed by Dr. Sealy, paid him his bill a few months ago. From the period first named to the last I have been intimately acquainted with every important event in Miss T.'s daily life. To prevent a plea of ignorance concerning this matter being set up by anyone hereafter, I have to ask you to receive from me details of the facts, to the accuracy of which I pledge myself.

Miss T., the lady whose case is in question, and who died in her 80th year, and since this discussion commenced, was a person of great tenderness and delicacy of feeling, most unwilling to give offence to anyone, most kind and generous, very sensitive, and very retiring. For Dr. Quain, who had been her medical attendant since 1854 to the period of her death, she entertained feelings of the warmest esteem and gratitude, and in his skill she had, as had the other members of her family, the most implicit confidence. Indeed I was pledged to her never to allow anyone else to see her if she were ill and unable to act for herself.

Mr. Henry James, of Weybridge, and subsequently his successor, Dr. Graham, attended Miss T. from time to time since 1868 with Dr. Quain—notably Dr. Graham in 1871 during a long and dangerous illness, and from that time (1871) to June, 1873, no other medical man entered Miss T.'s house, except Dr. Quain. They (Mr. James and Dr. Graham) were always regarded as Miss T.'s local medical attendants, and to Dr. Graham Miss T. recently expressed her thankfulness that he had been called to her, and her gratitude for his attention.

It was on or about June 13th, 1873, that a female in the service of Miss T., who, having married an assistant-gardener, was allowed still to continue in her service, engaged the services of Dr. Sealy to attend her in her approaching confinement. This, as far I can ascertain, and I have taken much pains in inquiring, was the first time that the name of Dr. Sealy was heard of in connexion with Miss T.'s establishment. Shortly after this another female servant sprained her ankle, and his seeing one servant led to the other asking him to see her. He waited on Miss T. to report on the nature of the accident. From this time Dr. Sealy took frequent opportunities of seeing Miss T. He brought the baby (as I have been told) in his arms from the house in the grounds where the servant was confined to show it to Miss T. He sent his children to see the baby, and his wife to call on Miss T. He volunteered to prescribe for Miss T., although she told him over and over again that Dr. Quain was her friend and her medical adviser for many years, and he sent her medicine, which Miss T. told me and others she never tasted. Finally, Miss T. complained to me of his intrusion, which I at once offered to put an end to; but she said, with her characteristic timidity and kindness of heart, "If you do he may neglect or be unkind to Mary and her child."

I have no reason to doubt that Dr. Sealy paid the visits he mentions; but they were to the three servants and the child, and not to Miss T., except under the circumstances already stated.

Such, then, was the history of this case prior to June 1st, 1874. On the 31st May (Sunday) Miss T. wrote, asking Dr. Quain to come and see her. On the morning of the 1st June, as she was more ill, a telegram was sent, begging him not to fail to come. Dr. Quain came in the afternoon of the 1st June, as he always did, and sometimes at great inconvenience. He found Miss T. dressed, and sitting in her room, perfectly clear in her judgment. Seeing that a serious illness was impending, Dr. Quain suggested the necessity of Miss T. having also the assistance of a local medical gentleman, who could see her with the frequency required in such a case. Miss T.'s maid then mentioned that Dr. Sealy had seen Miss T. in the morning, and had sent her some medicine. As this was the first time that Dr. Quain had ever heard of Dr. Sealy in connexion with Miss T. herself, he naturally inquired of Miss T. why was the medical gentleman whom he had been accustomed to meet dismissed. Being told that there was no reason whatever, but quite the reverse, he asked why was Dr. Sealy in attendance, and he was told that he was in attendance because he had been about the place since he attended at the instance of the gardener's wife, as already stated, and that one of the servants had gone for him on the morning of that day, Miss T. being herself too ill at the time to give instructions, and neither Father Glenie nor myself being in the house to give directions on the subject. Dr. Quain then consulted with Father Glenie. Knowing Miss T.'s peculiarities as regards diet and stimulants (being very reluctant to take them), all of which facts were known to Dr. Graham, who had skilfully attended her during her previous illness, they felt that it would not be for her welfare, even if it were required on any grounds, to make a change at such a critical moment. Father Glenie has already explained in a letter, which you have published, how he acted on the occasion. At the same time Dr. Quain further felt, as he has already explained in his letter to Dr. Sealy, that he was but doing his duty to a professional brother, a general practitioner, in advising that he should not be dismissed without a cause.

I have no hesitation in expressing my conviction that Dr. Quain, without personal feeling to one medical man or the other, felt conscientiously that he was doing his duty to his patient and to his profession in the advice he gave.

Now, on the other hand, allow me to point out that Dr. Sealy being aware that Miss T. was the friend and patient of Dr. Quain, and that she had been in his charge for many years, still asserts, if his statements could be taken as true, that he constantly attended to this lady for years, and yet he never communicated with Dr. Quain.

Again, on the morning of June 1st, when Dr. Sealy described the lady as being so ill that she was only partially conscious, did he suggest that Dr. Quain, her friend and physician, should be sent for? Did he ask if he had been sent for? Did he express a desire to meet him if he should come, or did he leave a note saying that he had seen the patient and sent her medicine? He did none of these things.

It is not for me to decide on a question of medical etiquette, nor where in this case the breach of it lies. I have taken upon myself simply to state the facts of the case, and in the first instance I leave the medical profession, the Editor of THE LANCET, and Dr. Sealy to form their own judgment upon them.

I am, Sir, your obedient servant,

Molyneux-chambers, August 20th, 1874. J. J. KEILY.

*** The time has fully arrived for bringing this remarkable correspondence to an end. Dr. Sealy must have an opportunity of answering Mr. Keily's letter if he sees fit to do so. After that we must decline the insertion of any further letters on the subject. Mr. Keily in his former letter said that Dr. Sealy was never known or recognised as the medical attendant of Miss T. On being reminded that he himself had paid Dr. Sealy a bill for medical attendance on Miss T., Mr. Keily writes the letter which we publish to-day, and which we publish under some protest. Mr. Keily admits having paid Dr. Sealy for attending Miss T., and admits *now* that he did attend her. But he makes various charges against Dr. Sealy—that he took advantage of attending a servant to obtrude himself on Miss T.; that he volunteered to prescribe for Miss T.; that Miss T. complained of his intrusion; and that all the visits paid to her were paid under the circumstances described—that is, obtrusively. These are serious charges to make against a respectable medical man, and, as we have said, we publish them under protest. The variance of the respective accounts of Mr. Keily and Dr. Sealy is complete. Mr. Keily says that Dr. Sealy's relation to Miss T.'s establishment began in 1873 by attending the gardener's wife at her own instance; and that having attended her, and soon after another servant, Dr. Sealy obtruded himself and his prescriptions on Miss T. till she complained of the obtrusion to Mr. Keily. Dr. Sealy says that his first communication with any member of Miss T.'s establishment was with herself personally; that he was sent for two or three years since (1871?) on the occasion of her attack of bronchitis, but that, being out, other assistance was obtained; that soon after this Miss T. expressed to him her regret at what had been done, and hoped he would consider himself their local medical adviser; that his first communication with Miss T. was entirely unsought on his part, and that, not understanding what had occurred on the previous occasion, it was not till he had received a second summons that he went. The profession will judge whether it is more likely that Miss T. had, with all her admitted respect for her London advisers, a little, and not an unnatural, "will of her own" in the matter of a local doctor, and so intimated to Dr. Sealy—as he says she did—her wish that he should be considered her local adviser; or that Dr. Sealy—whose letters, at least, we know to be conceived and written in the true spirit of a professional man—should have been so unprofessional as to obtrude himself and his prescriptions on Miss T. Before we accept a theory so discreditable to a provincial medical man, and at such variance with his statements, we should have to be furnished with other evidence than Mr. Keily's, which we gather is largely the result of mere inquiry. It is gratifying, when the accounts of two gentlemen differ so much, to find one point of agreement. Dr. Sealy and Mr. Keily agree in stating that on June 1st, when Miss T.'s fatal illness began, the local doctor called in was Dr. Sealy. The servants would be likely to act according to custom and according to what they believed to be Miss T.'s wish. And it is a most significant fact that they sent, not for Dr. Graham, but for Dr. Sealy. And the significance of it is enhanced when it is taken in connexion with a fact which Mr. James has published—that neither he nor his partner had attended Miss T. since 1872.—ED. L.

To the Editor of THE LANCET.

SIR,—Be so good as to insert this letter in your next publication, and favour me with your opinion on the following points.

Was Dr. Sealy right in leaving Miss T.'s house on June 1st without having sent for Dr. Quain? He found the aged lady (86 years, and now some time buried) "only partially conscious," and with other bad symptoms, which ought to have alarmed him. He says "nothing had *previously* occurred to necessitate our acting in concert," and, speaking of Miss T., she "hoped I should consider myself their *local* medical attendant." In point of fact, was not Dr. Sealy holding *a trust?* He also states Dr. Quain visited "periodically." It was not so. He relied on being sent for *when necessary*, taking his fee at the time of his visit. Was Dr. Graham right to continue his attendance on Mrs. T.? He states in his letter to you, "Nor had I for some days afterwards the smallest idea that she had within the last six years been seen by any other medical man but Dr. Quain and myself"; and he tells me that having learnt Dr. Sealy felt himself aggrieved, and his patient had become fully conscious, he offered to retire, but she expressed her great pleasure at finding him *again* in attendance. Was Dr. Sealy right, having rushed into print, and brought unjust obloquy on "his friend Dr. Graham," "in taking leave of the subject," without saying one word to exonerate his friend from the imputation of unprofessional conduct?

I am your obedient servant,

Richmond, Aug. 24th, 1874. HENRY JAMES.

*** The first question Mr. James puts is a very reasonable one, but we should require to know more of the facts of the case before we could feel justified in giving a decided opinion on the subject. Dr. Graham's position in this peculiar case was a delicate one, and he will not be judged severely from any point of view; especially as, on learning that Dr. Sealy felt aggrieved, he offered to retire. Under all the circumstances, he was right in attending Miss T. If Dr. Sealy has not said a word to exonerate Dr. Graham, neither has he said a word in blame of his conduct.—ED. L.

ST. GILES.

FROM a report of the sanitary condition of the St. Giles district, we gather that the 80 deaths from diarrhœa recorded during the past year were made the subject of special inquiries with a view of ascertaining the social and physical conditions of the victims, who were all under five years of age. The evidence collected made it clear that these deaths occurred among debilitated, ill-fed, and ill-cared-for children, living in close, fetid rooms. Dr. Ross reports an outbreak of typhus fever during the year, and 18 deaths from the disease.

Invalid, (Plymouth.)—The case is one which would not offer any great difficulty to a properly qualified medical practitioner. But nostrum-mongers of all kinds should be scrupulously avoided.

R. M. O., (Birmingham.)—All information respecting the courses of study at the universities and medical schools in the three kingdoms will be given in our Students' Number to be published on the 12th proximo.

TREATMENT OF FAVUS.

To the Editor of THE LANCET.

SIR,—I should like to hear from some of your readers who have had experience in the treatment of favus whether it is possible to cure it, and, if so, how. I have had two cases of that most intractable complaint under treatment for the past twelve months, and it is as far as ever from being cured apparently. I have tried everything I believe except epilation, which I am very loth to perform unless perfectly certain of success, as it is a cruel, and must be an exceedingly difficult thing to effect thoroughly. I have kept the heads shaved, and applied poultices, ointments, and lotions of all kinds. I have had the heads thoroughly washed twice a day for months together. Lastly, I have lately been giving a very full and fair trial to the oleate of mercury (10 per cent. solution), as recommended by Mr. Marshall; but it has failed as impartially as all the rest, rather aggravating the irritation if anything, and increasing the formation of the peculiar scaly fungus. It can be kept *in statu quo* by cleanliness and simple inunction with lard or oil, but beyond that I cannot get it to move on the road towards cure. Internal treatment of any kind is out of the question, as the boys (aged four and three years) who are the subjects of it are in rude health in all other respects, and are free from all suspicion of constitutional weakness or taint, strumous or otherwise. Your obedient servant,

St. John's, N.F., Aug. 11th, 1874. THOS. HOWLEY, L.R.C.S.I., &c.

COMMUNICATIONS, LETTERS, &c., have been received from—Prof. Rutherford; Mr. Jonathan Hutchinson, London; Dr. Marion Sims, Paris; Mr. Teevan, London; Mr. Cadge, Norwich; Mr. Meller, London; M. B. de Ricci; Dr. Ginders, Normanton; Mr. Orchard, Pendleton; Dr. Sisson, London; Mr. Greenfield, London; Mr. Fleming, Chatham; Dr. Campbell, Bengal; Dr. Godson, London; Messrs. Hodding & Beevor; Mr. Ormond, Wigan; Mr. Itzstein, London; Mr. Roberts, Fourcrosses; Dr. Leslie, London; Dr. Dearden, Accrington; Mr. Wroe; Dr. Robertson, Buxton; Mr. Lang, London; Dr. Cartwright Reed, Southampton; Mr. Hayward, London; Mr. Griffin, Southampton; Dr. M'Leod, Kilmarnock; Mr. Grose, Nancy; Dr. Williams, Dieppe; Mr. Ross Jordan; Mr. M'Donald, Darlington; Sir Duncan Gibb; Mr. Brown, Manchester; Rev. J. Henry, Edinburgh; Mr. Horne, Exeter; Mr. Ladell, Henley; Dr. Balbirnie, Sheffield; Dr. Mackintosh, Chesterfield; Mr. Sydney Jones, London; Dr. Dougall, Glasgow; Mr. Adam Scott, London; Mr. Hake, Great Yarmouth; Mr. Williams, Liverpool; Mr. Webster, Wokingham; Mr. Buckell, Camelford; Mr. Howley, St. John's, Newfoundland; Mr. Lewis, Birmingham; Dr. Haldane, Edinburgh; Mr. Murray, Kelsey; Dr. Jordison, Malpas; Mr. Boreham, Cantley; Mr. Dearden, Church; Mr. Brewer, Dalston; Mr. Woolhouse, Sheffield; Mr. Redfern, Syston; Dr. Webster, Iowa; Mr. Force, Exeter; Mr. Scott, Ben Rhydding; Mr. Whalley, Bradford; Mr. Taylor, Cannock; Mr. Foulkes, Potterdale; Mr. Etheridge, Teignmouth; Mr. Walker, St. Andrews; Dr. Bull, Blaenavon; Mr. Carr, Newcastle-on-Tyne; Dr. Greene; Mr. Rix, Bradford; Mr. Morgan, Neath; Dr. Davies, Duffryn Ffrwd; Dr. Allen, St. John's-wood; Dr. Clegg, Bacup; A General Practitioner; Hope Deferred; One who has Suffered; Another Medicus; An Old Apprentice; Fair Play; Hydropote; M.R.C.S.; Enquirer; J. M.; &c. &c.

LETTERS, each *with enclosure*, are also acknowledged from — Mr. Bishop, Frome; Mr. Miller, Brierley Hill; Mr. Crossman, Hambrook; Mr. Gross, Leighton Buzzard; Mr. Greensill, Slough; Mr. Smith, Sittingbourne; Mr. Stuart, Wigan; Mr. M'Clure, Tiverton; Dr. Jackson, Broadstairs; Dr. Waters, Liverpool; Mr. Cripps, Cardiff; Mr. Cory, Buckhurst Hill; Mr. Tweddell, Houghton-le-Spring; Mr. Chapman, Putney; Mr. Bennett, Leeds; Mr. Redmond, Wolverhampton; Mr. Oxley, Doncaster; Dr. Hill, London; Mrs. Philpot, Norbiton; Dr. Coote, Burton-on-Trent; Dr. Davies, Ebbw Vale; Dr. Clayton, Accrington; Dr. Symons, Hackney; Mr. Smith, Burton-on-Trent; Dr. Warren, Birmingham; Dr. Drummond, Royton; Mr. Collingwood, Middleton-in-Teesdale; Mr. Walker, Macclesfield; Mr. Thomas, Sheffield; Mr. Fergusson, Peebles; Mr. Pritchard, Lyme; Dr. Gay, Aberdeen; Mr. Nicholson, Tunbridge Wells; Mr. Atkinson, Abingdon; Mr. Bruce, Kidsgrove; Mr. Rogers, Stockwell; Mr. Young, Reading; Mr. Nuttall, Bradford; Mr. Derham, Preston; Mr. Anderson, Whitehaven; Dr. Sergeant, Warboys; Mr. Turtle, Bristol; Mr. Simpson, Scarborough; Mr. Weir, Lower Broughton; Mr. Haynes, Bishops-Stortford; Mr. Daniell, Derby; B. C., London; M.D., London; H. P., Norwich; Medicus, Mile-end; E. R., Woburn.

Cork Constitution, Welshman, Sunday Times, Newcastle Daily Chronicle, Manchester Guardian, Surrey Advertiser, The Colonies, London Observer, Huddersfield Chronicle, Richmond and Twickenham Times, Philadelphia Medical Times, North British Mail, Isle of Man Times, and Liverpool Daily Courier have been received.

METEOROLOGICAL READINGS

(Taken by Steward's Instruments).

THE LANCET OFFICE, AUGUST 27TH, 1874.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia. in Vacuo	Max. Temp. Shade	Min. Temp.	Rain-fall.	Remarks at 9 A.M.
Aug. 21	30·54	E.	60	63	104	75	56	...	Overcast
„ 22	30·56	E.	54	57	104	74	47	...	Fine
„ 24	30·40	N.E.	52	56	99	73	47	...	Fine
„ 25	30·15	W.	55	59	106	76	51	...	Overcast
„ 26	30·18	E.	53	56	91	73	49	...	Foggy
„ 27	29·85	W.	57	60	...	...	49	...	Overcast

Medical Diary for the ensuing Week.

Monday, Aug. 31.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

Tuesday, Sept. 1.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—3 P.M. Expected Operations: Lithotomy (female); Removal of Exostosis; Ovariotomy.

Wednesday, Sept. 2.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARK'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Thursday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

Thursday, Sept. 3.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

Friday, Sept. 4.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 3 P.M.

Saturday, Sept. 5.

HOSPITAL FOR WOMEN Soho-square.—Operations, 9½ A.M.
ROYAL FREE HOSPITAL.—Operations, 9 A.M. and 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

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